

AKAI

MODEL **VS-P120_{EM}**

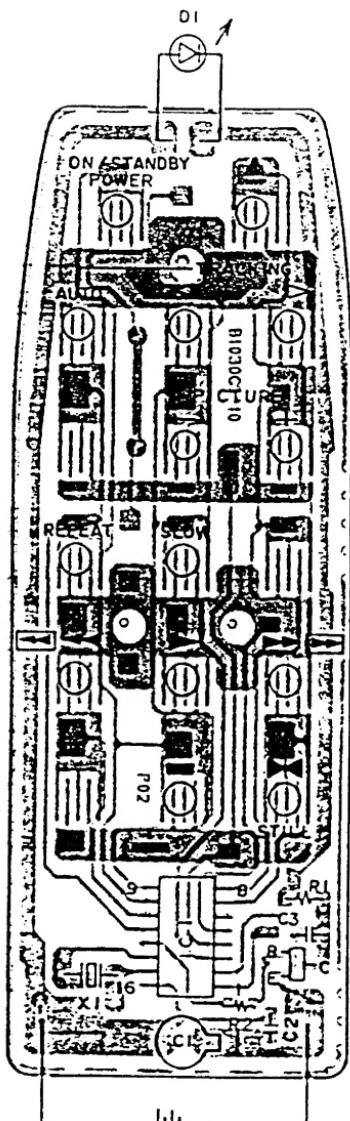
MODEL **VS-R120_{EM/EDG}**

SCHEMATIC DIAGRAMS AND PC BOARDS

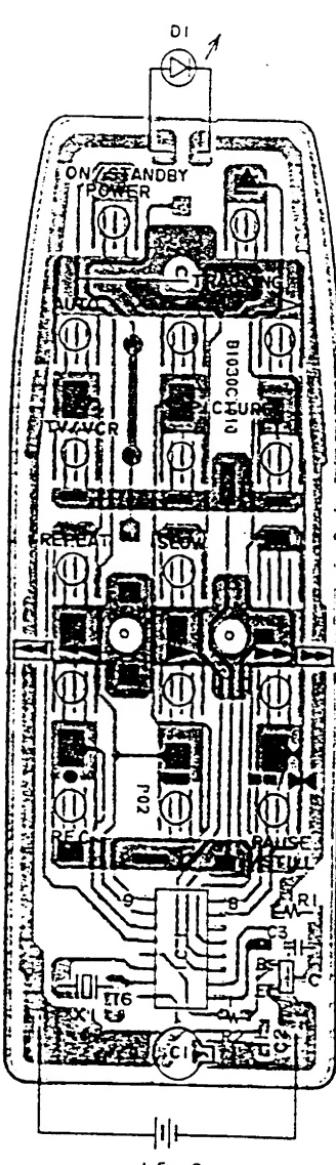
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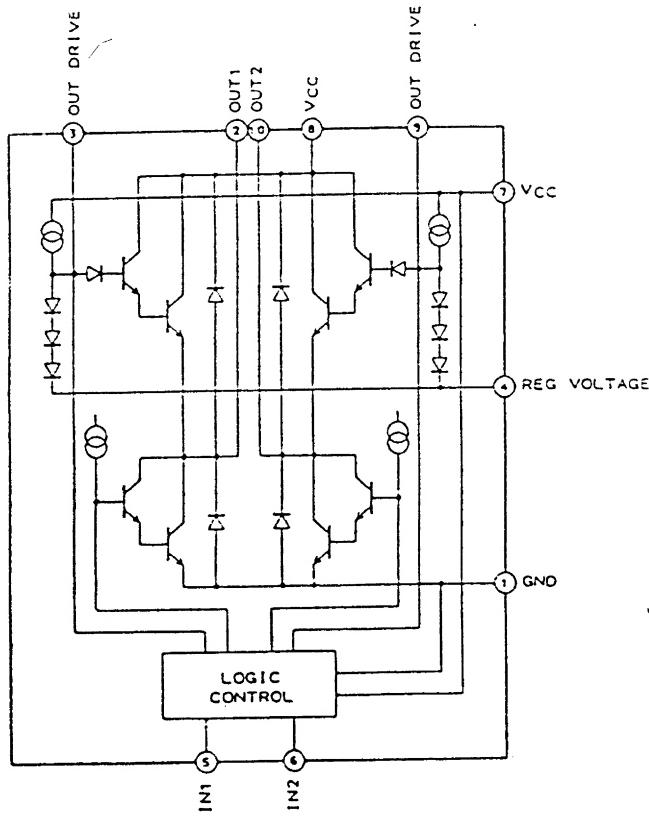
Use these schematic diagrams and PC boards together with the provided service manual.



REMO-CON PCB
B1030C5010
(RC-V22E)

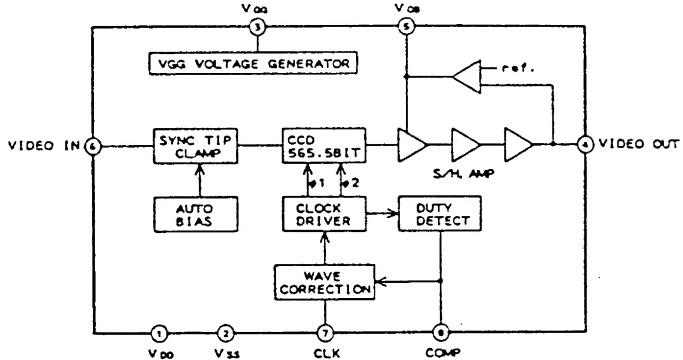


REMO-CON PCB
B1030C5010
(RC-V23E)

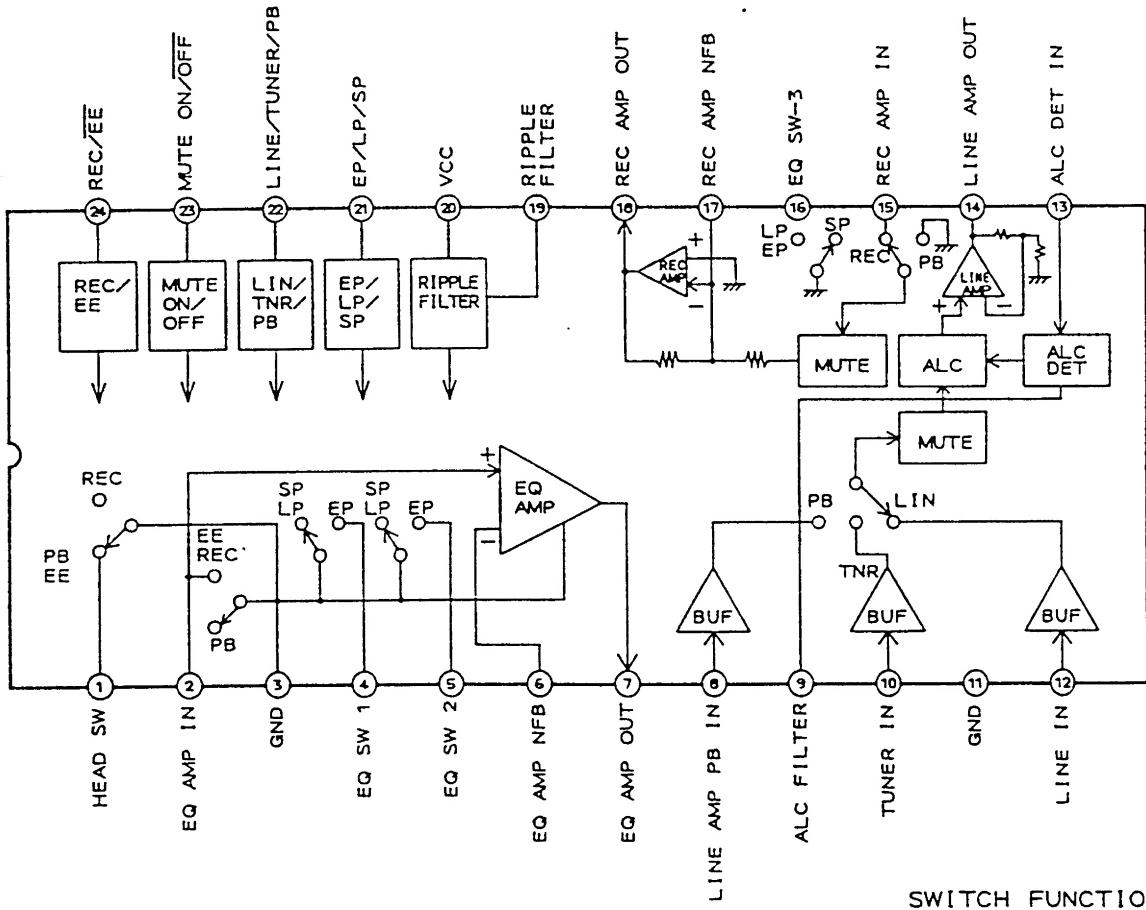


INPUT		OUTPUT		MODE
(3)	(4)	(2)	(10)	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

LC8992 (CCD 1H DELAY LINE)

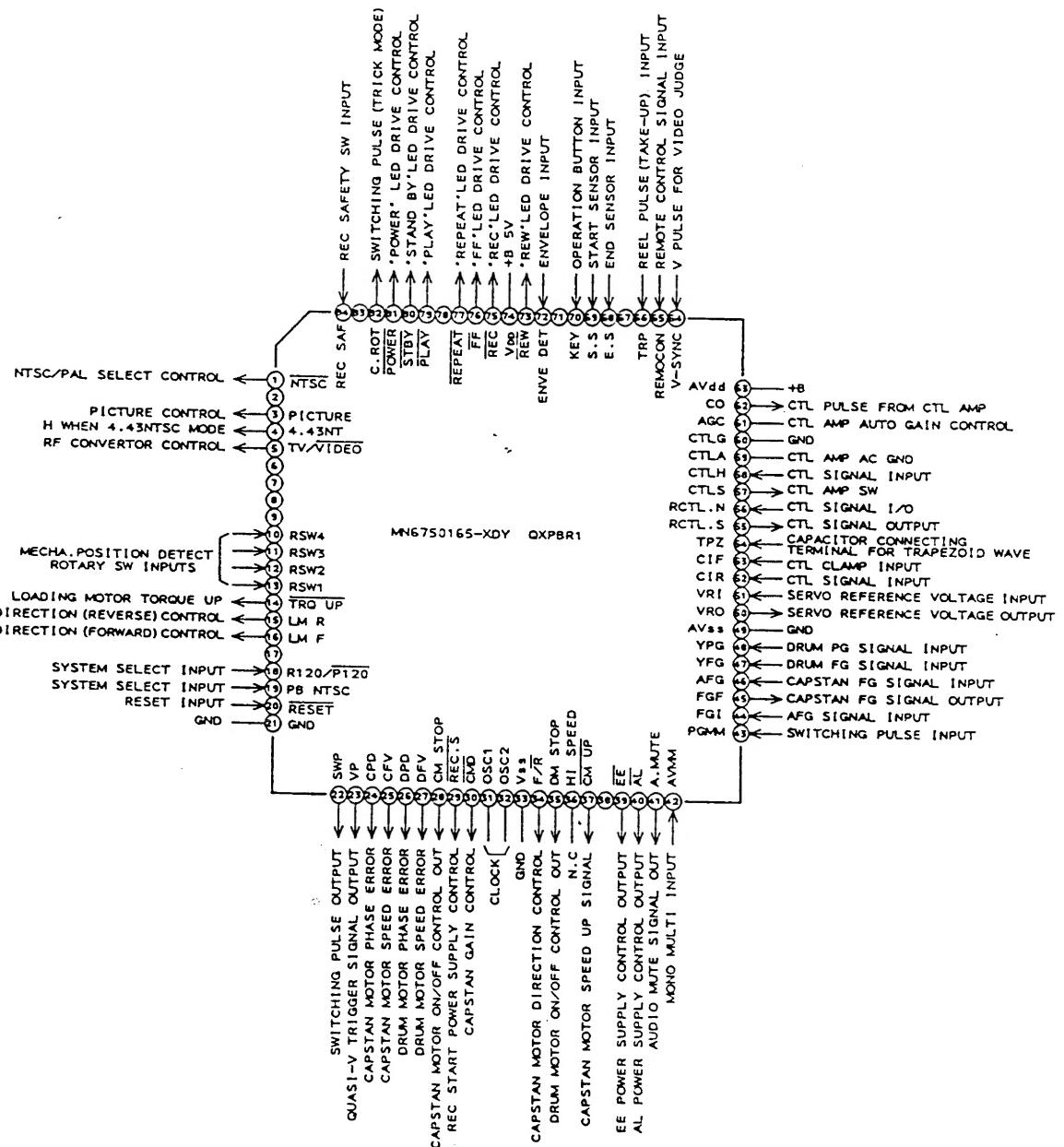


LA7285 (AUDIO SIGNAL REC/PB AMP)



SWITCH FUNCTION

DC LEVEL			
0 ~ 1.0V	1.8 ~ 2.6V	3.6V	
(21)PIN SP	LP	EP	
(22)PIN PB	TUNER	LINE	



1

MODE SWITCH TRUTH TABLE

MODE		STOP (TAPE LOADED)		PAUSE/PLAY		PLAY		REVIEW		CUE		FF	REW	POWER OFF (WITH CASSETTE)	
OUTPUT	EJECT	A	B	A	B	A	B	A	B	A	B				
RSW 4	H (5V)	L	L	L	L	L	H	L	L	L	L	L	L	H	
RSW 3	L (0V)	L	H	H	L	H	H	H	H	H	L	L	L	H	
RSW 2	L	L	L	L	H	L	H	H	L	L	H	H	H	L	
RSW 1	L	H	H	L	L	H	L	L	L	H	H	H	H	L	

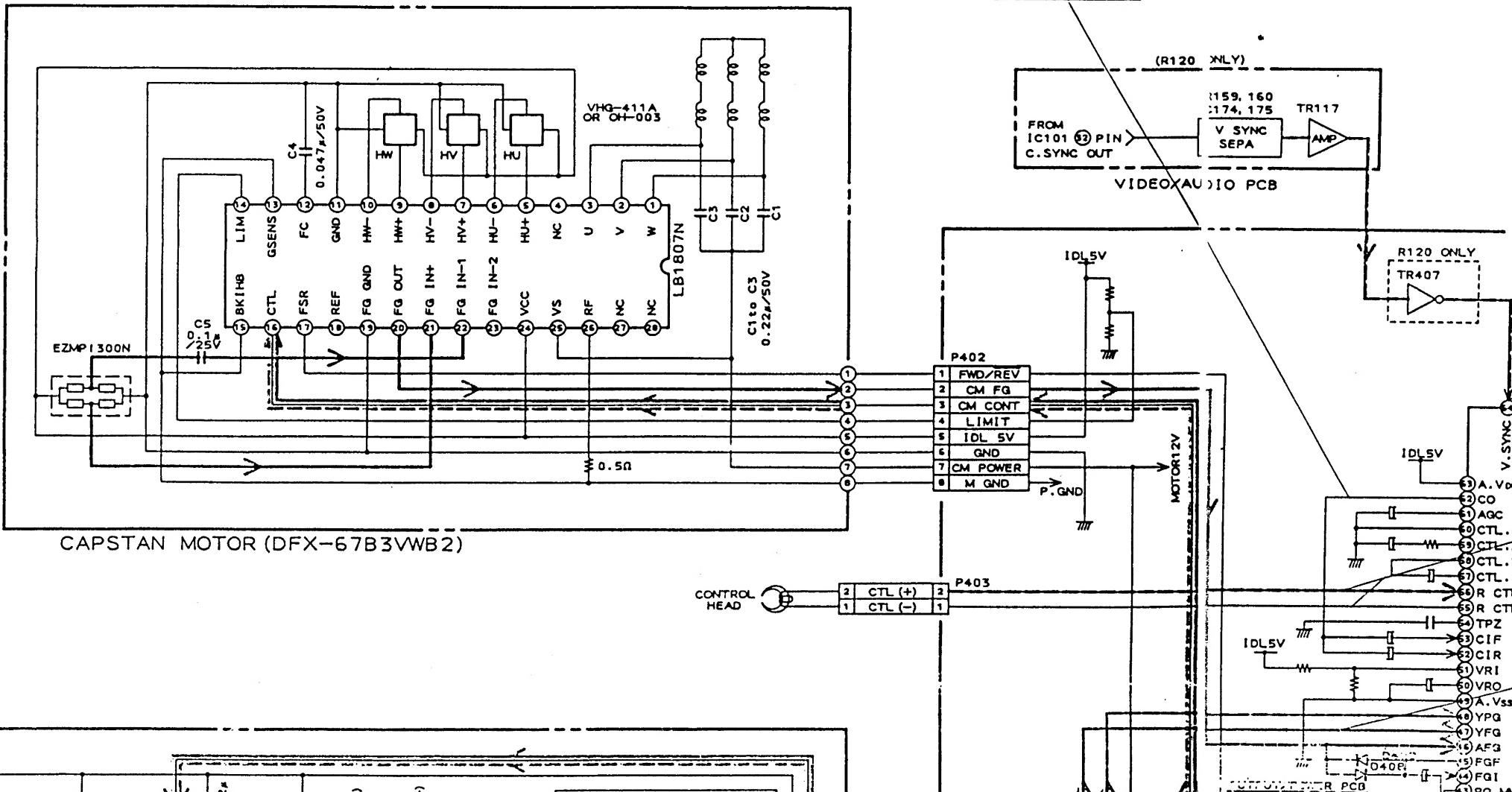
(A: 2 VIDEO HEADS MODEL
B: 3 OR 4 VIDEO HEADS MODEL)

CTL (PB)

CM PHASE REFERENCE

MODE	REFERENCE
PB	CTL SIGNAL
REC	V-SYNC

2

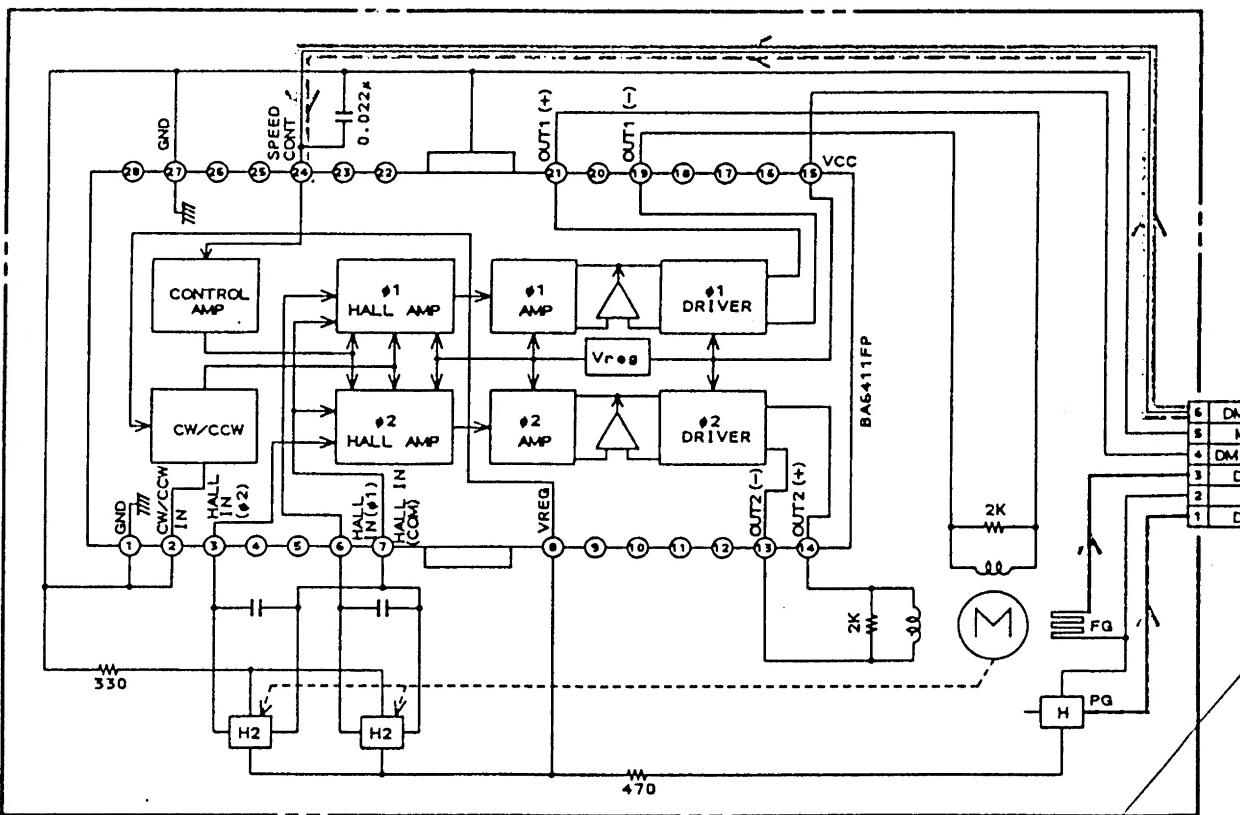


3

1

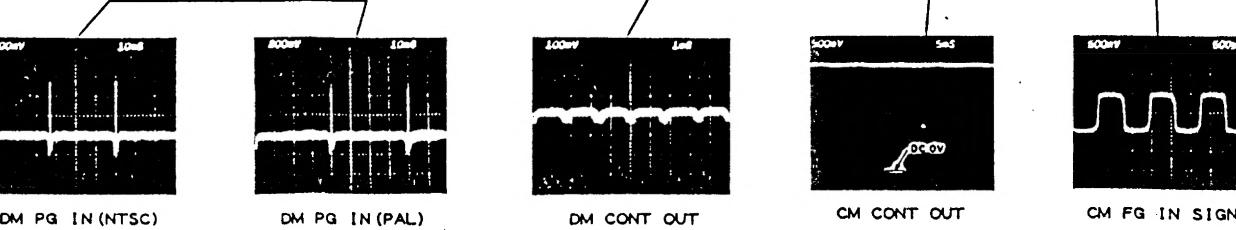
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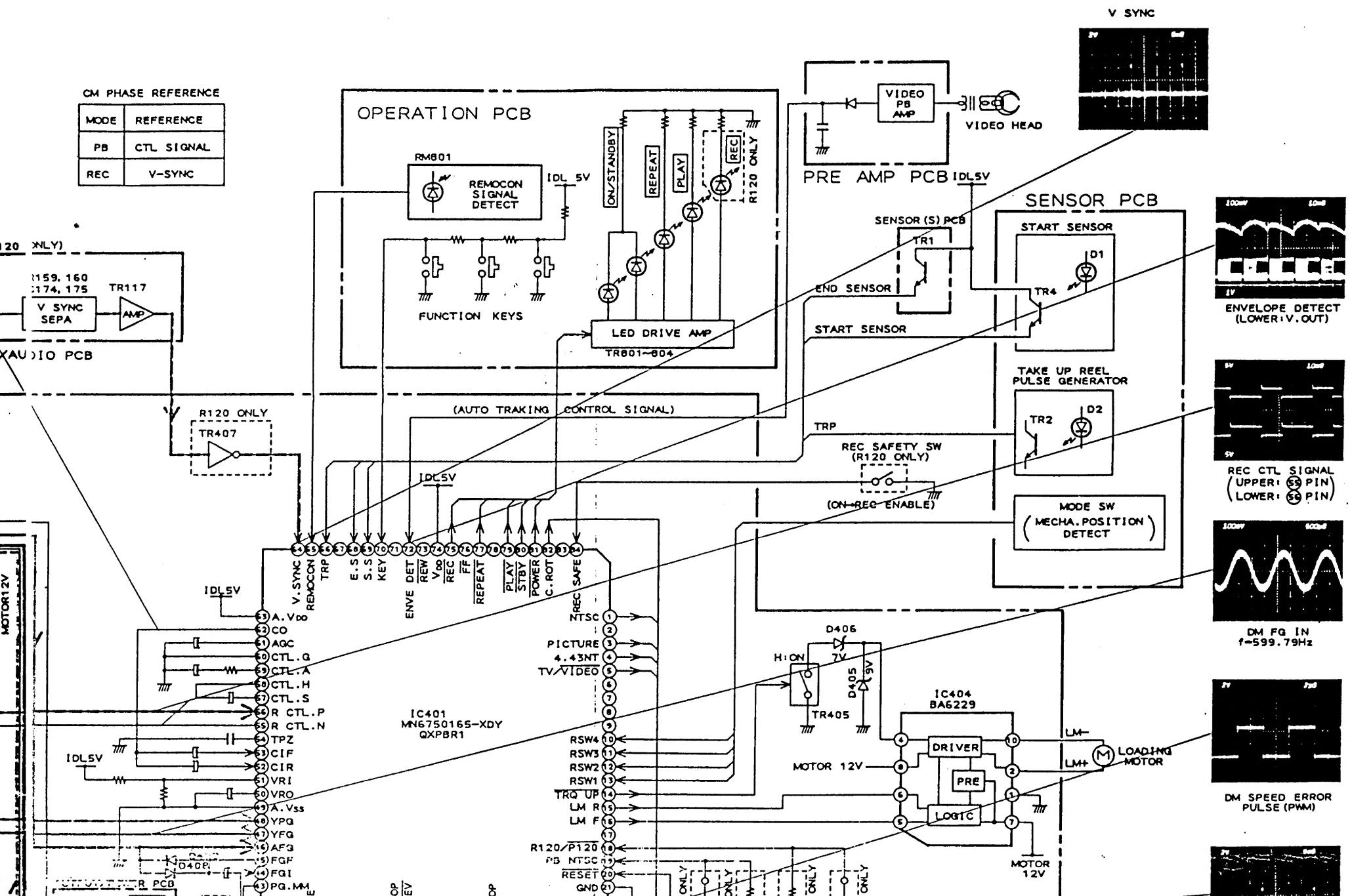
CAPSTAN MOTOR (DFX-67B3VWB2)

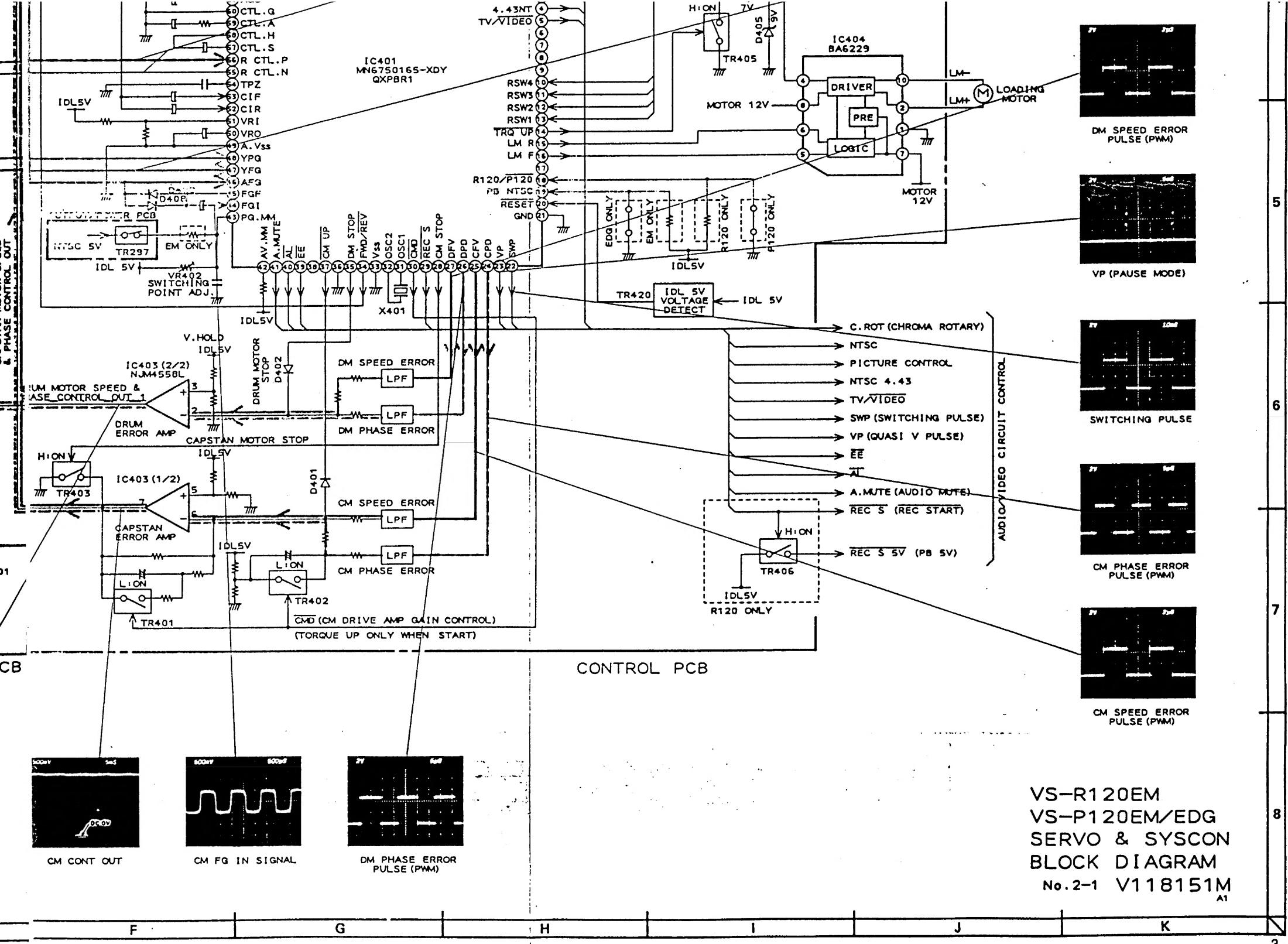


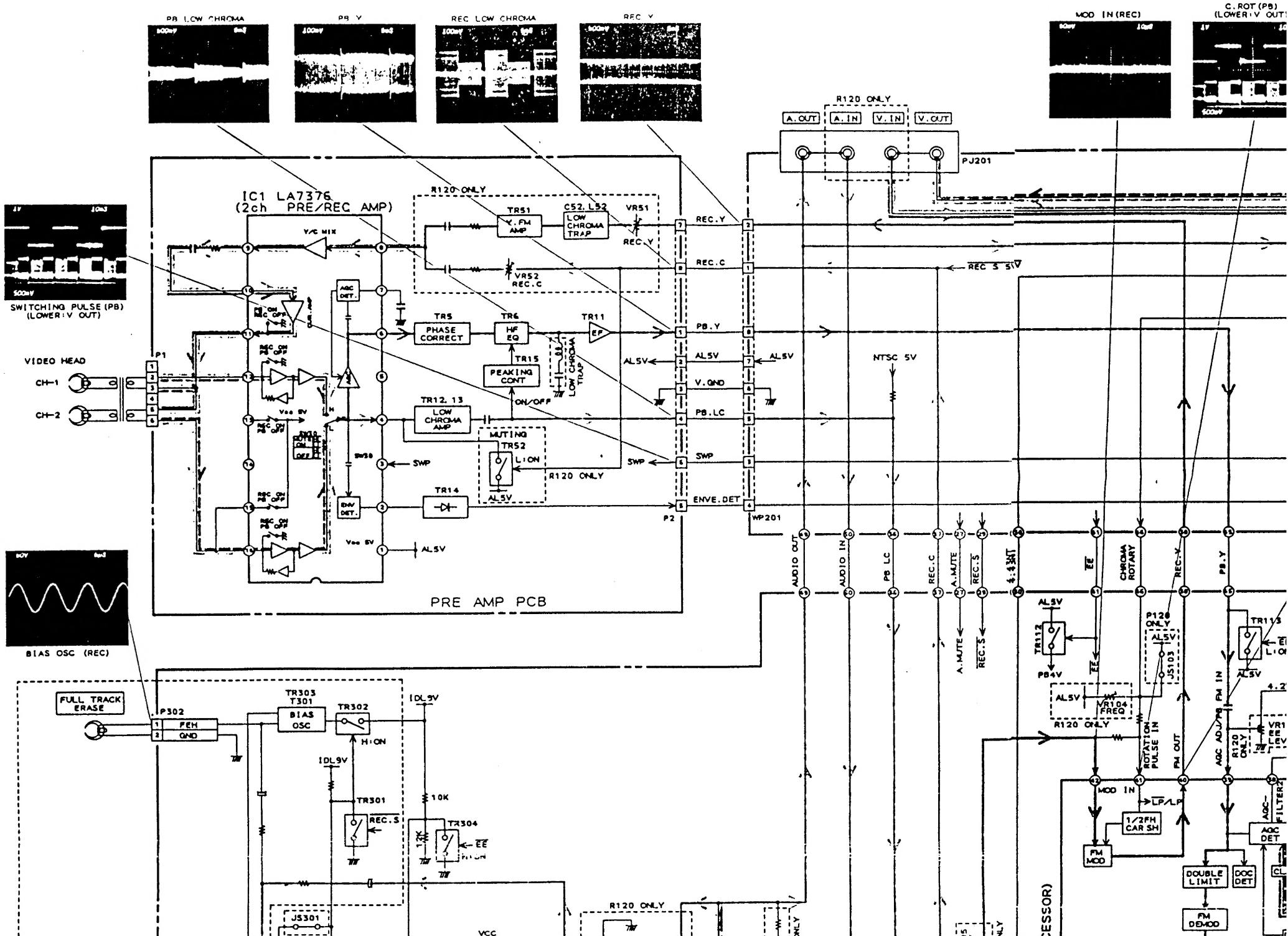
DRUM MOTOR (DCX-3A3VRA)

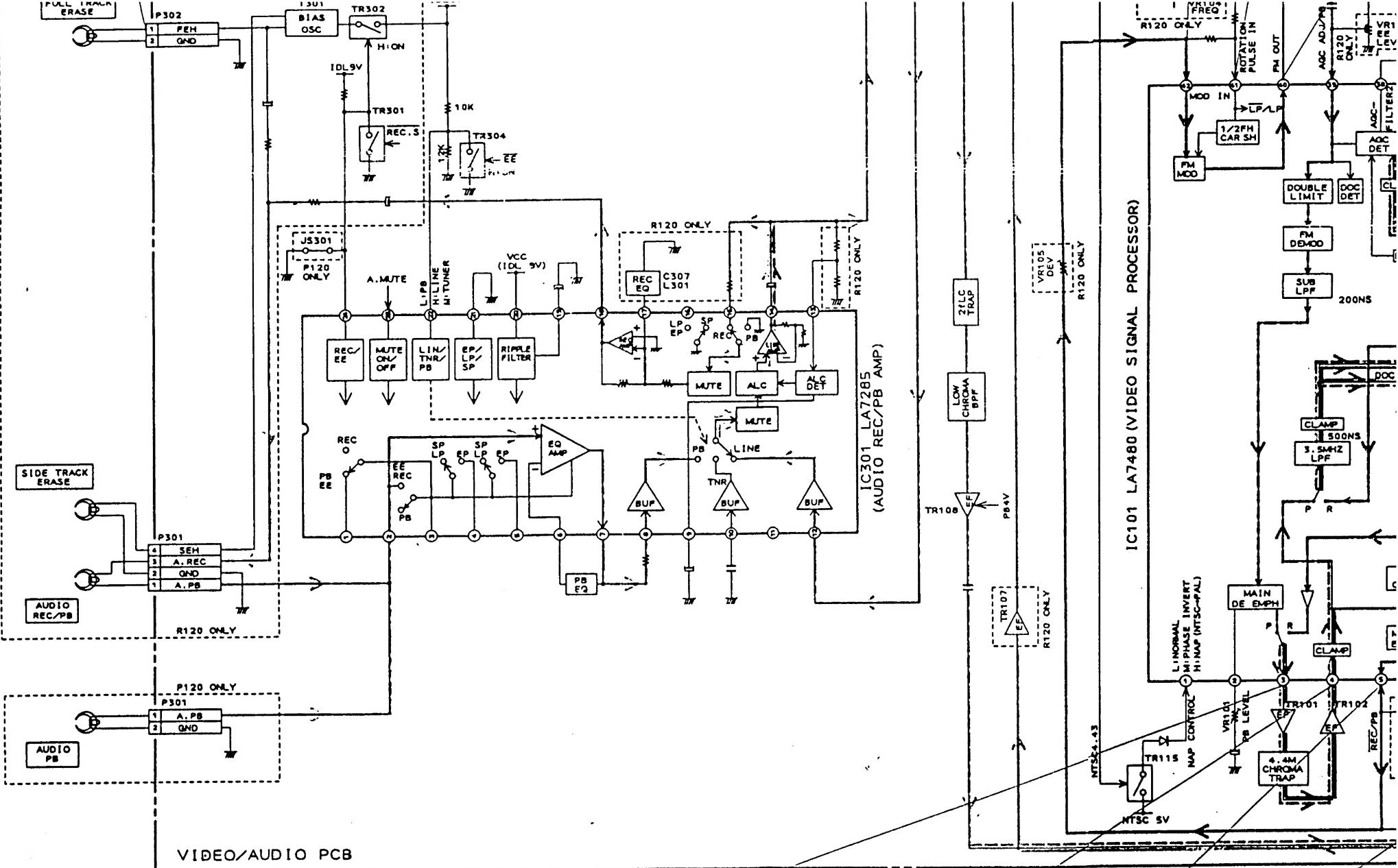
----- CAPSTAN MOTOR PHASE
----- CAPSTAN MOTOR SPEED
----- DRUM MOTOR PHASE
----- DRUM MOTOR SPEED





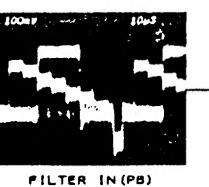




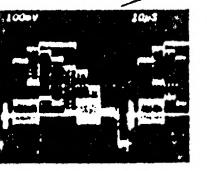


VIDEO/AUDIO PCB

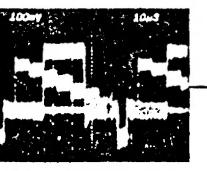
----- PB Y SIGNAL LINE
----- REC Y SIGNAL LINE
----- PB CHROMA SIGNAL LINE
----- REC CHROMA SIGNAL LINE
----- PB AUDIO SIGNAL LINE
----- REC AUDIO SIGNAL LINE



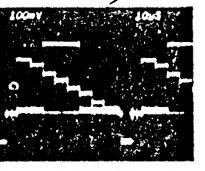
FILTER IN (PB)



FILTER IN (REC)



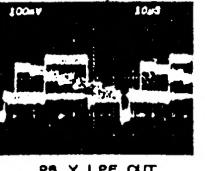
Y IN (PB)



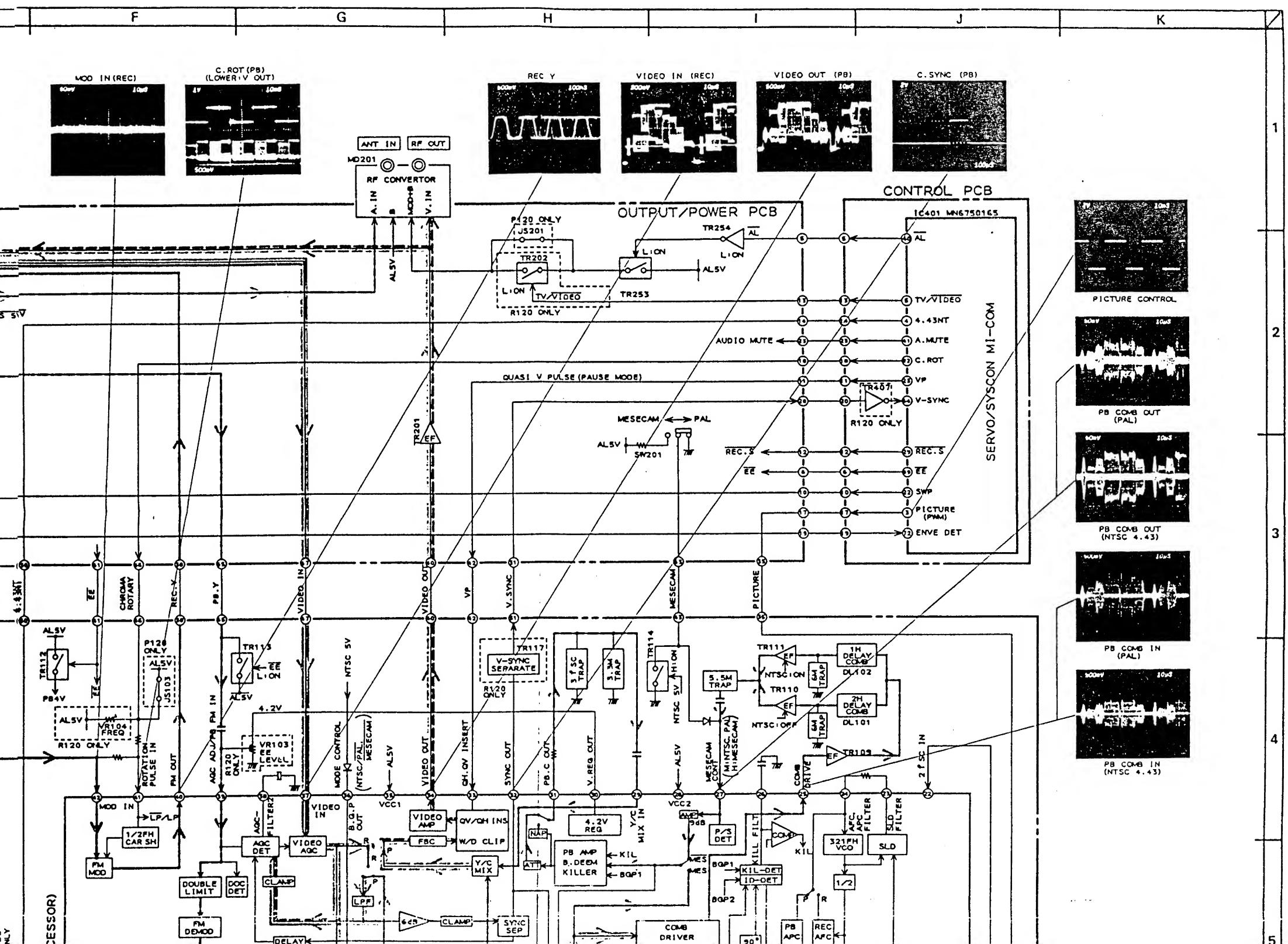
Y IN (REC)

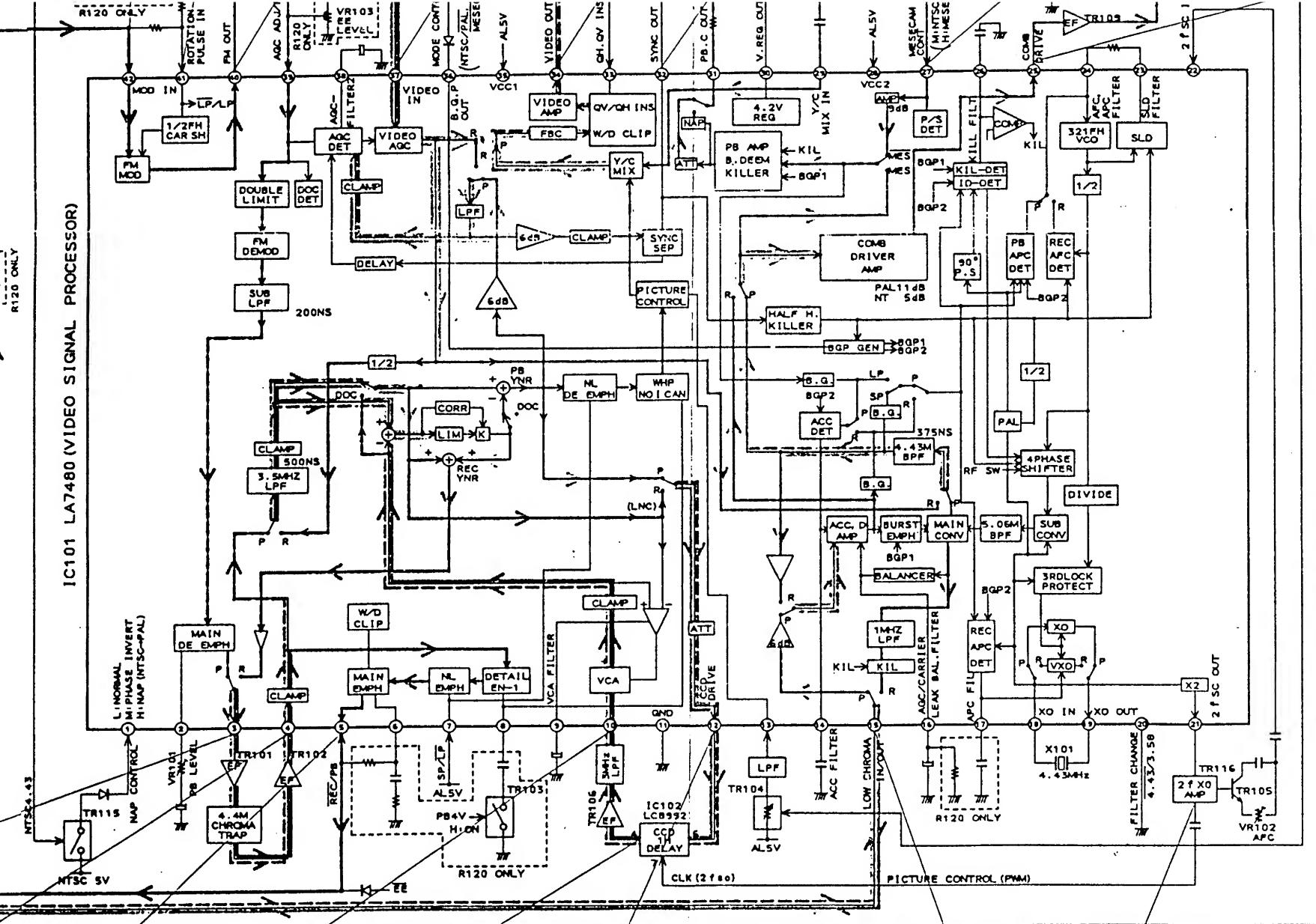


MAIN EMPHASIS OUT
(BEC)



PB Y LPP OUT





MAIN EMPHASIS OUT
(REC)



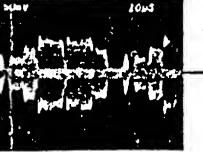
PB Y LPP OUT



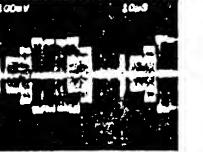
PB Y CCD OUT



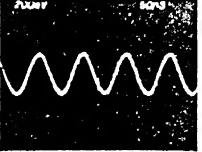
PS Y CCD IN



LOW CHROMA IN
(BB)

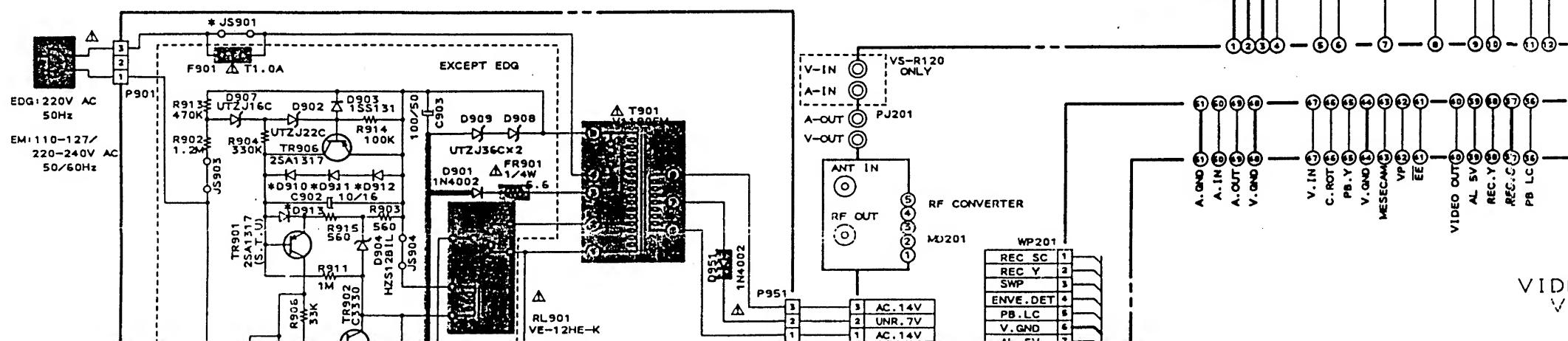
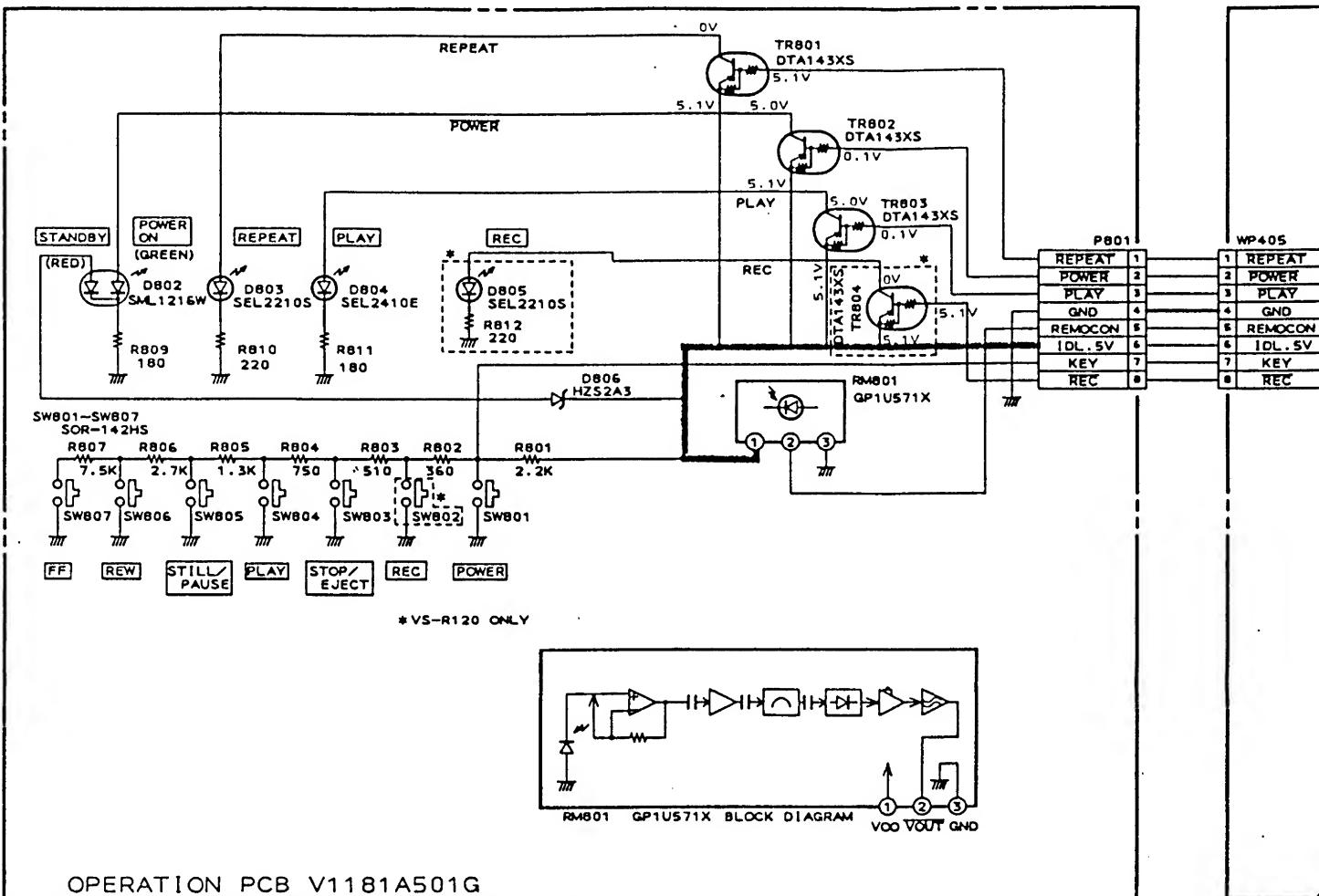


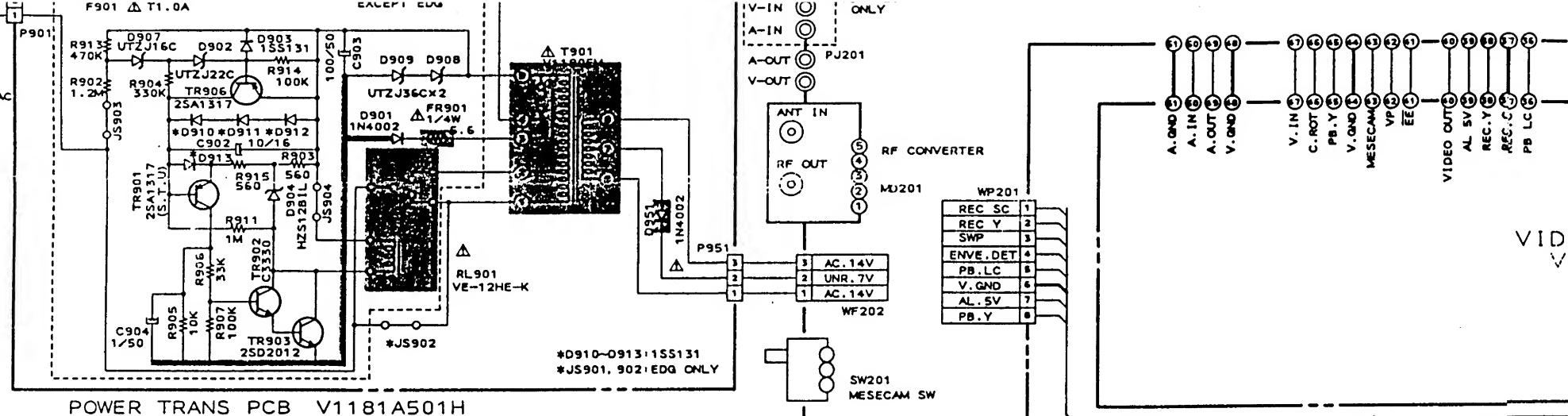
LOW CHROMA OUT
(REC)



2 fsc OUT (PB)

VS-R120EM
VS-P120EM
VIDEO & AUDIO
BLOCK DIAGRAM
No. 2-2 V118152M



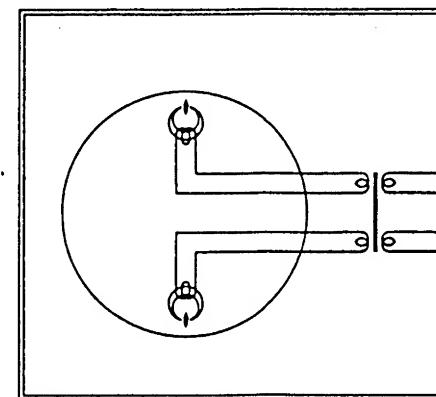


POWER TRANS PCB V1181A501H

PRIMARY SECTION
*INDICATED VOLTAGES WERE MEASURED
DURING STOP MODE.
(CONNECTED DC VOLTMETER'S GROUND
TO THE TR903 Emitter WHEN MEASURED)

DC VOLTAGES				
	B	C	D	E
AC 110V (220V)	TR901 35.4V (41.8V)	1.4V (0V)	36.0V (41.8V)	
	TR902 1.1V (0V)	0.5V (0V)	23.3V (41.8V)	
	TR903 23.3V (0V)	0.5V (41.8V)	0V	
	TR906 36.5V (41.9V)	35.4V (41.8V)	36.6V (41.8V)	

OUTPUT/POWER PC
V1181A501B



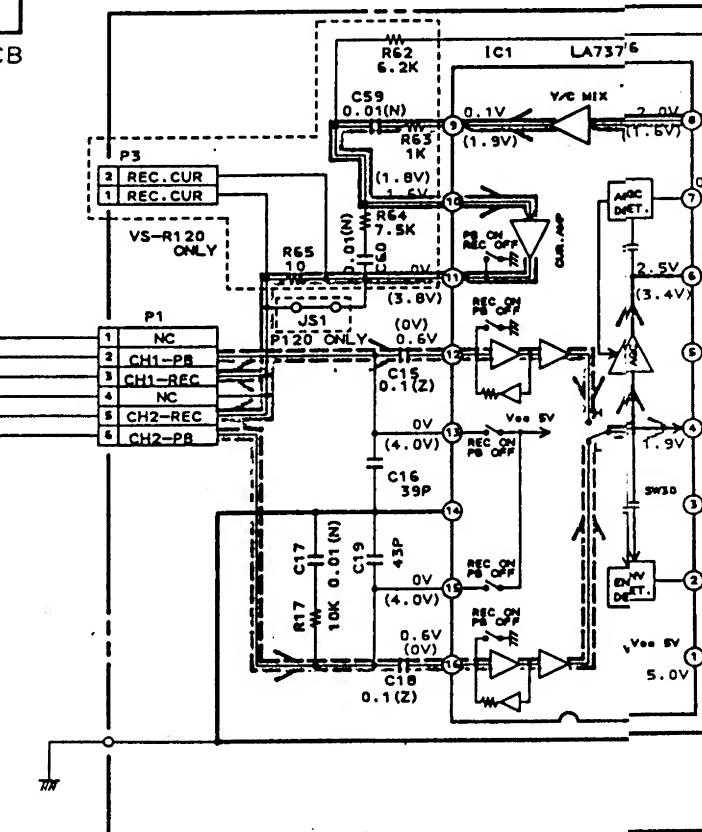
VIDEO HEAD DRUM BLOCK

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μ F (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μ F/VW

INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
() : REC MODE

WARNING: Δ AND ■ INDICATE SAFETY CRITICAL
COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS
ONLY WITH MANUFACTURER'S RECOMMENDED
PARTS.

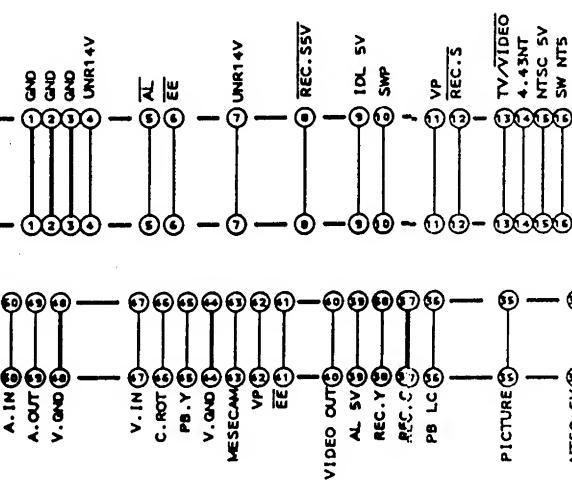
AVERTISSEMENT A ET , ILS INDIQUENT LES
COMPOSTANTS CRITIQUES DE SÉCURITÉ,
POUR MAINTENIR LE DÉGRÉ DE SÉCURITÉ
DE L'APPAREIL. NE REMPLACER QUE DES
PIÈCES RECOMMANDÉES PAR LE FABRICANT.



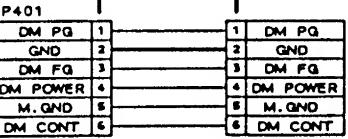
PRE AMP PCB V1181A501D

T
ON
SV

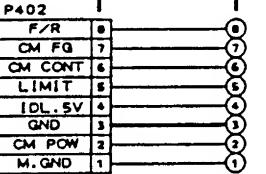
CONTROL PCB
V1181A501C



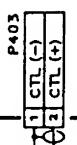
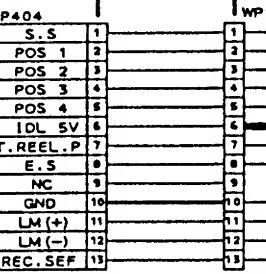
VIDEO/AUDIO PCB
V1181A501A



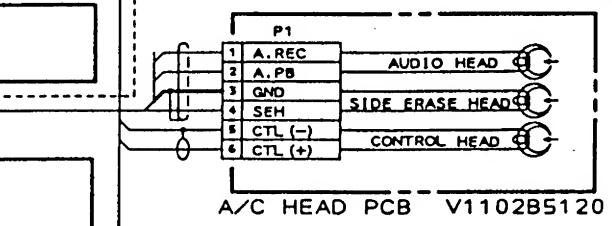
DRUM MOTOR
DCX-3A3VRA



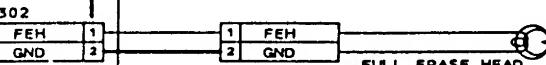
CAPSTAN MOTOR
DFX-67B3VWB2



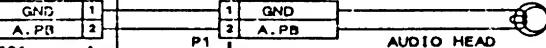
SENSOR PCB V1102A507A



A/C HEAD PCB V1102B5120



FULL ERASE HEAD



AUDIO HEAD

VS-R120 ONLY

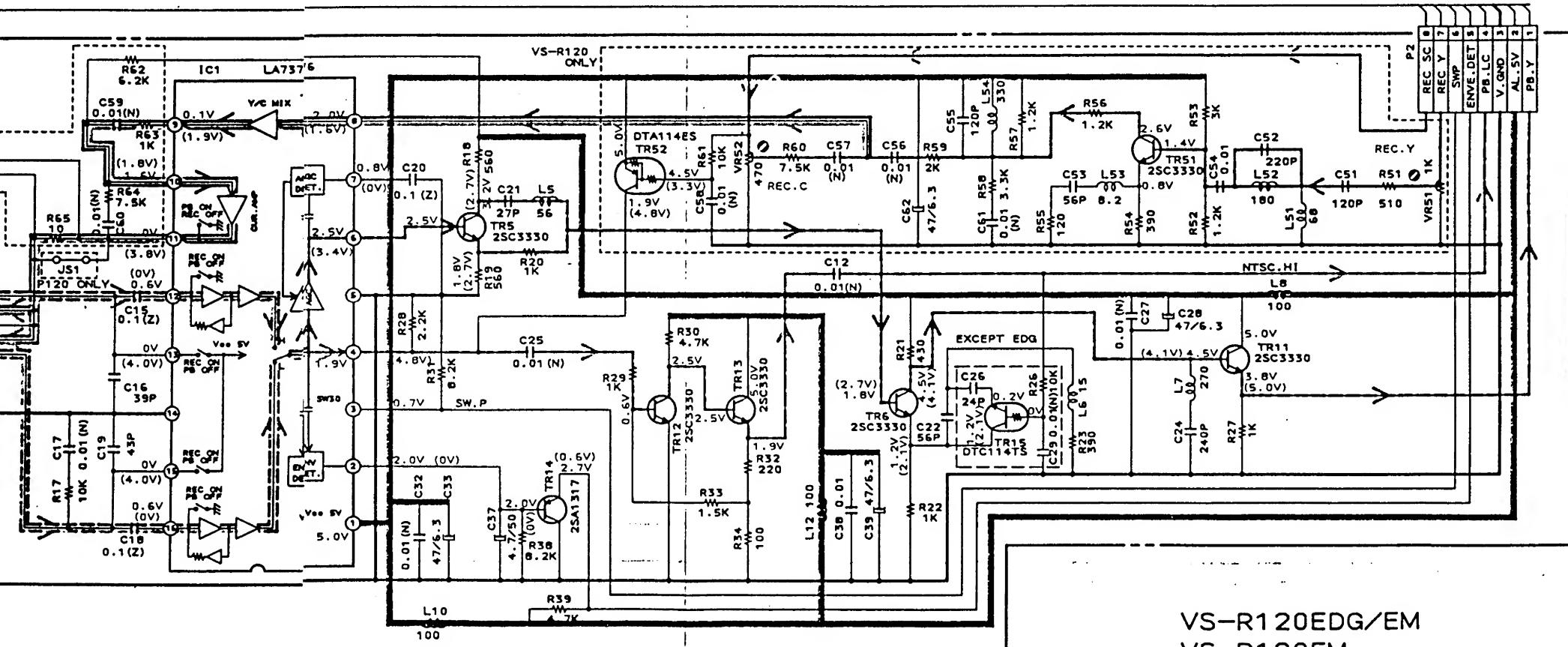
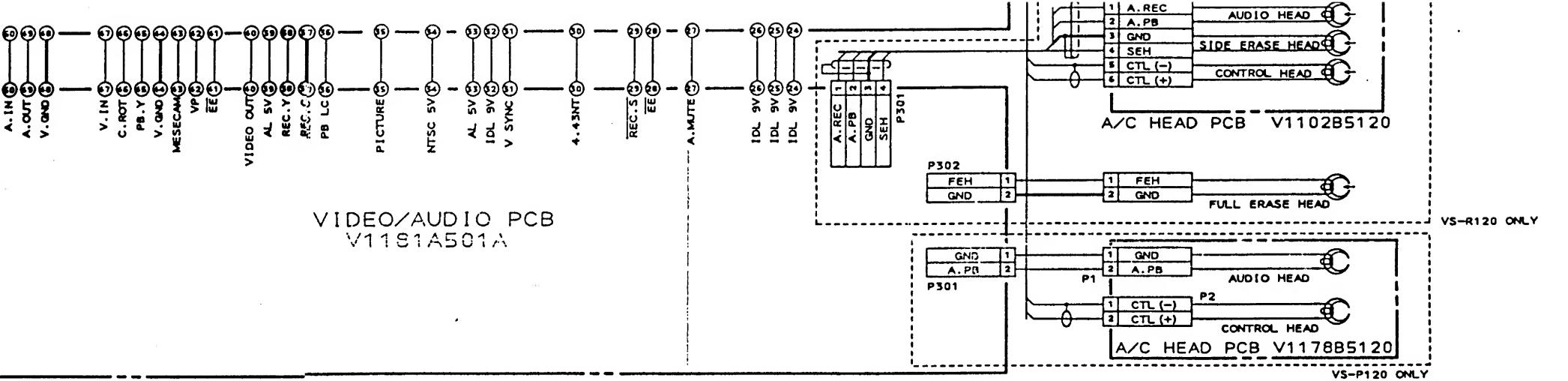
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2

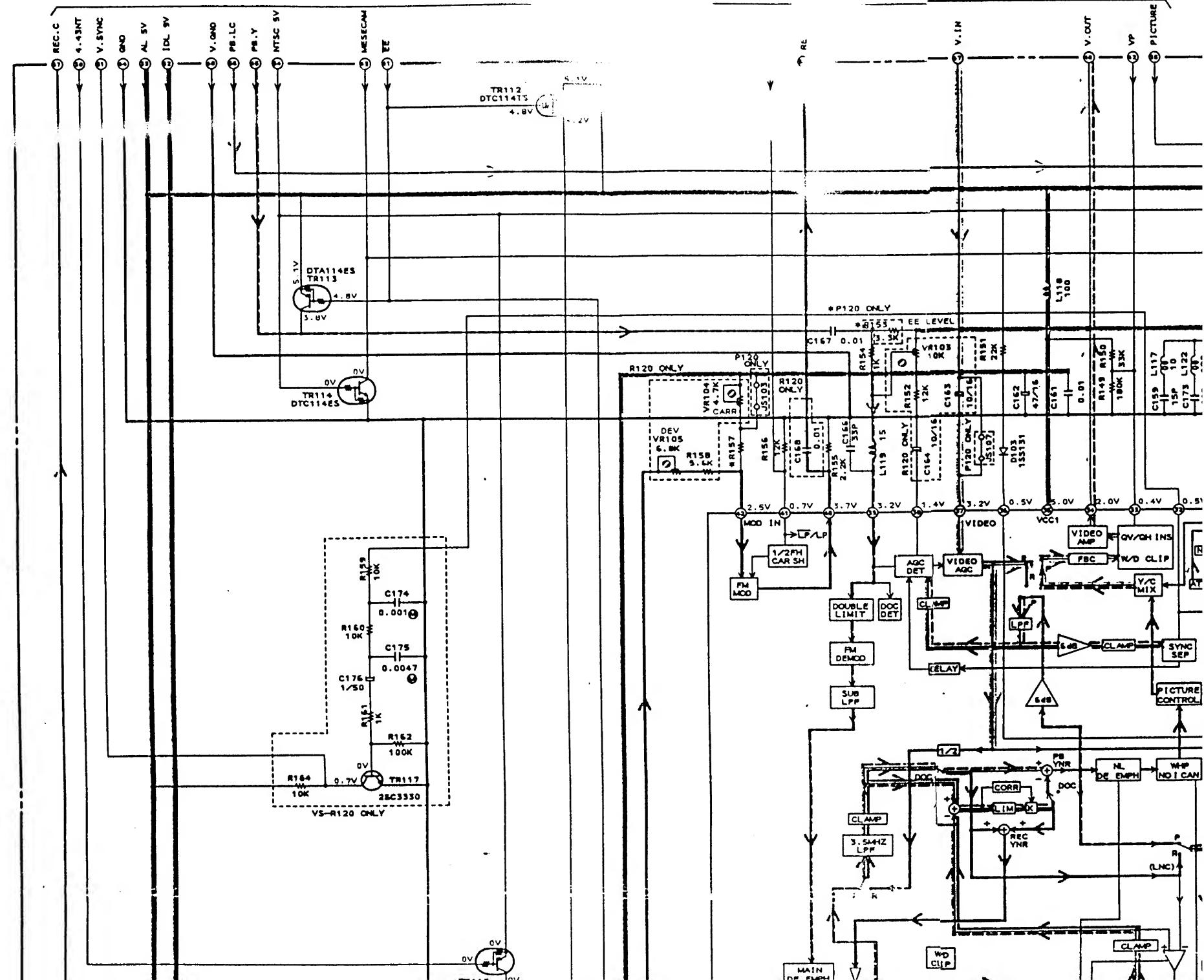
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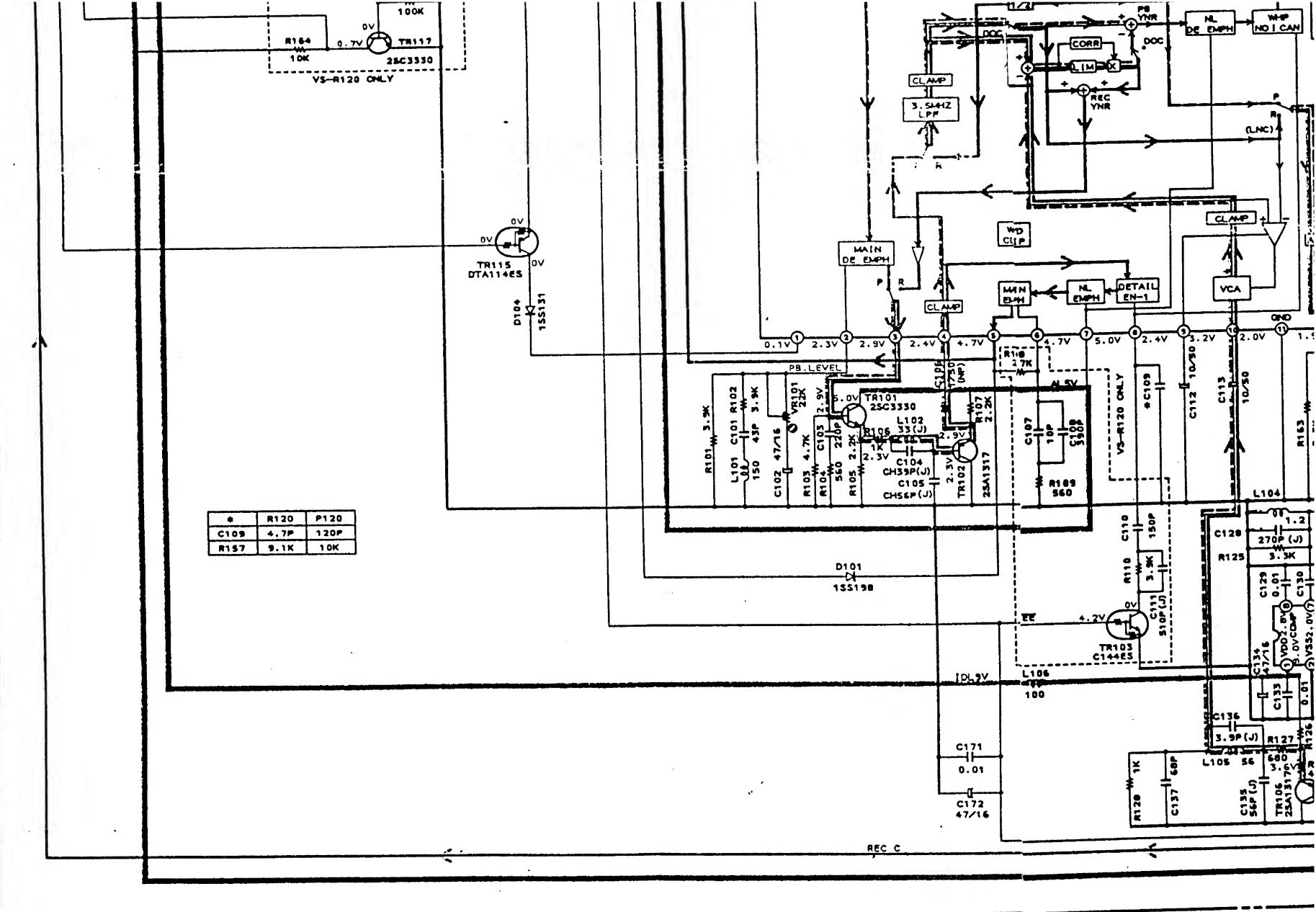
4

5



VS-R120EDG/EM
VS-P120EM
CONNECTION DIAGRAM
No. 6-1 V118101M
A1





A

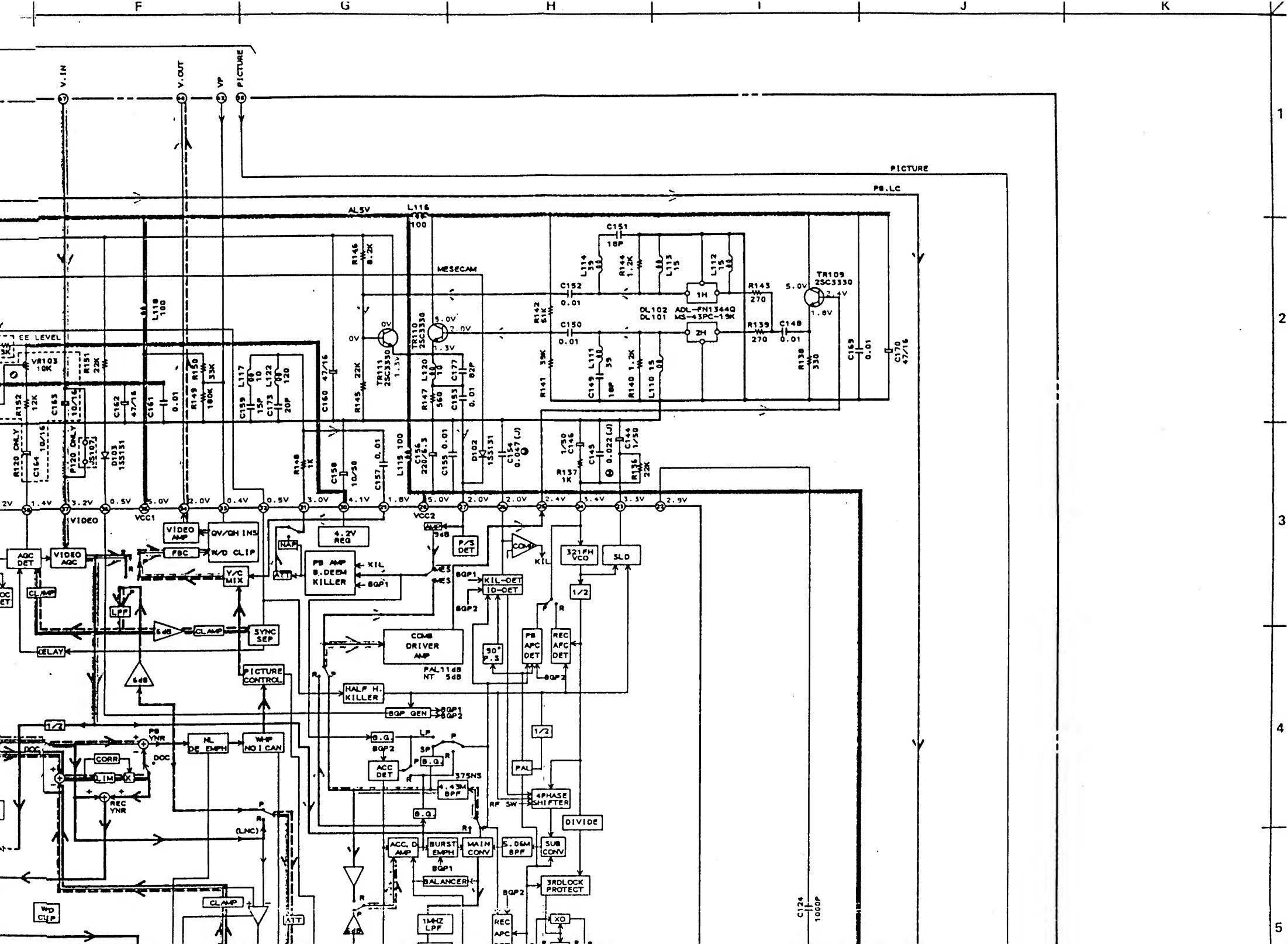
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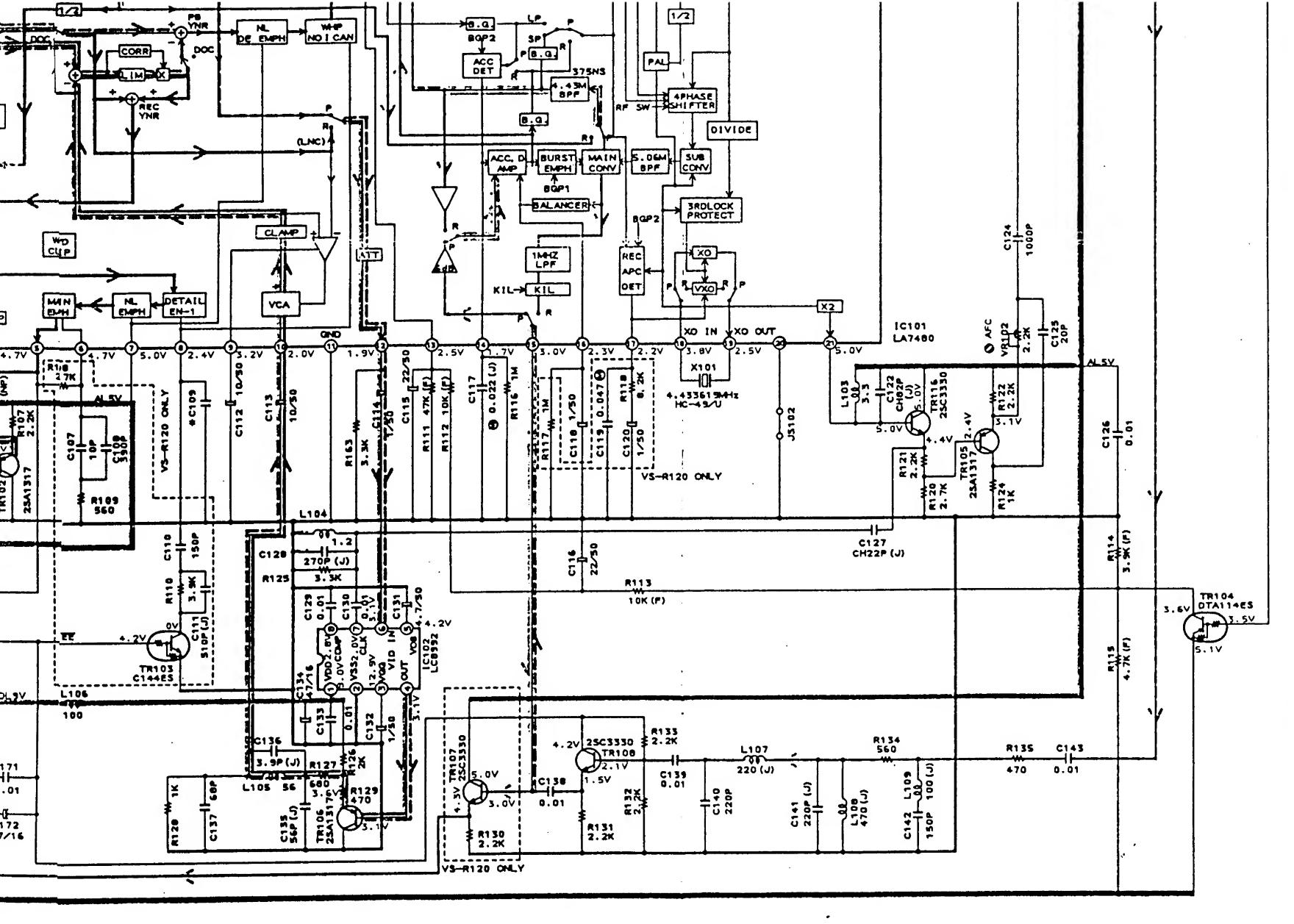
C

D

E

F

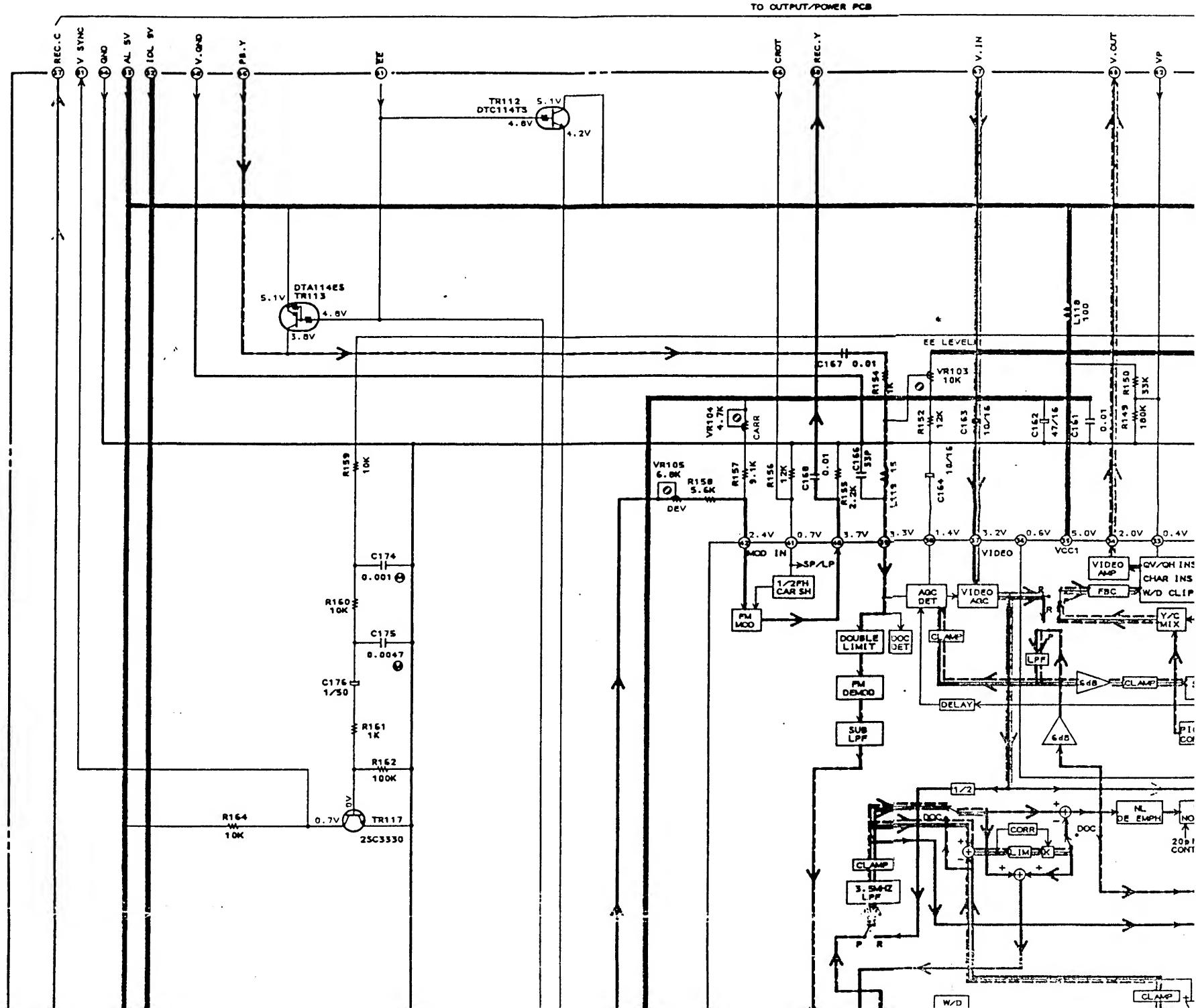


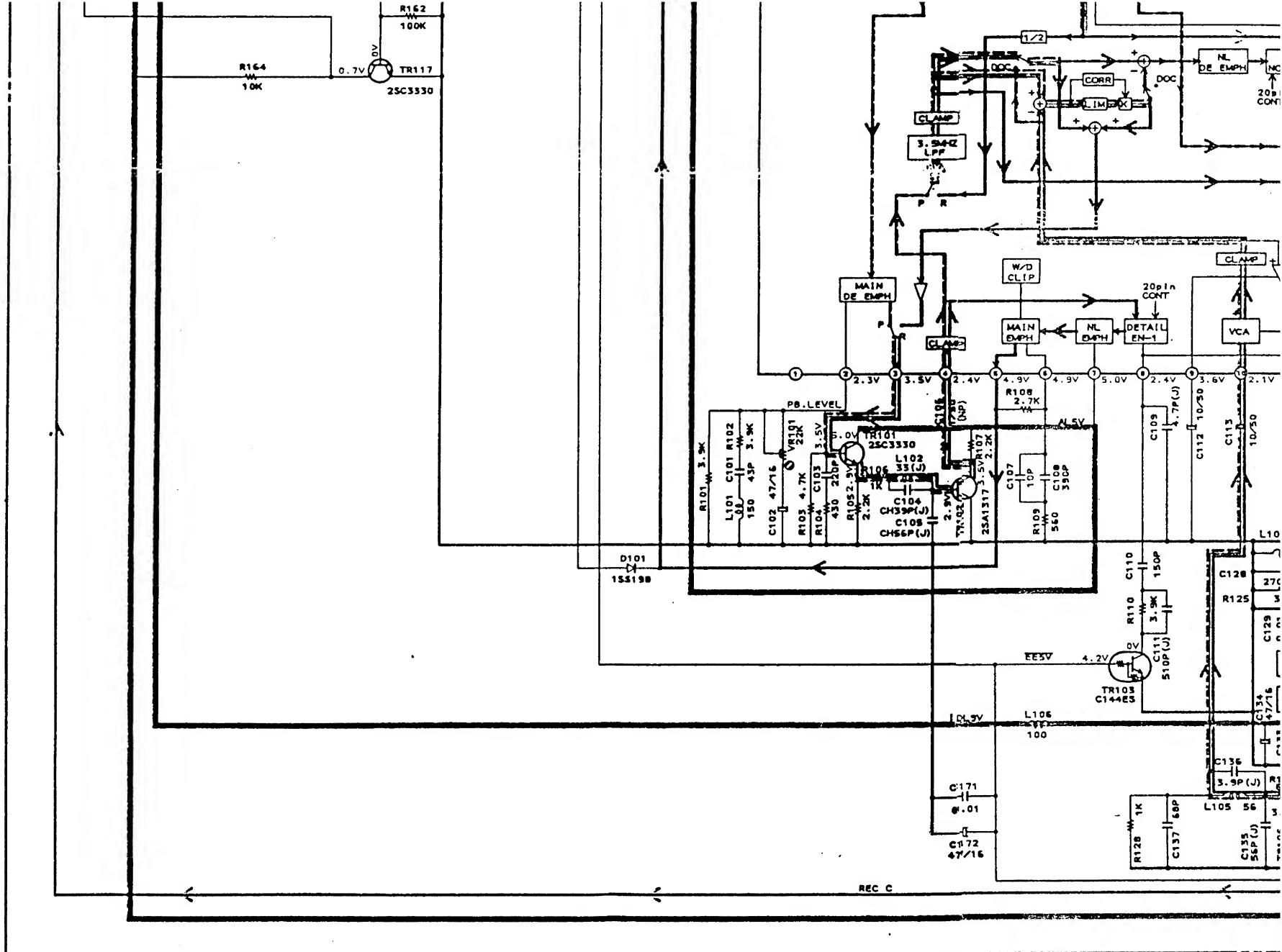


INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
(TAPE USED: PAL RECORDED
TAPE)

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μ F (MF)
ALL ELECTROLYTIC CAPACITORS IN μ F/MV
ALL INDUCTOR IN μ H(K)
D IS FILM CAPACITOR

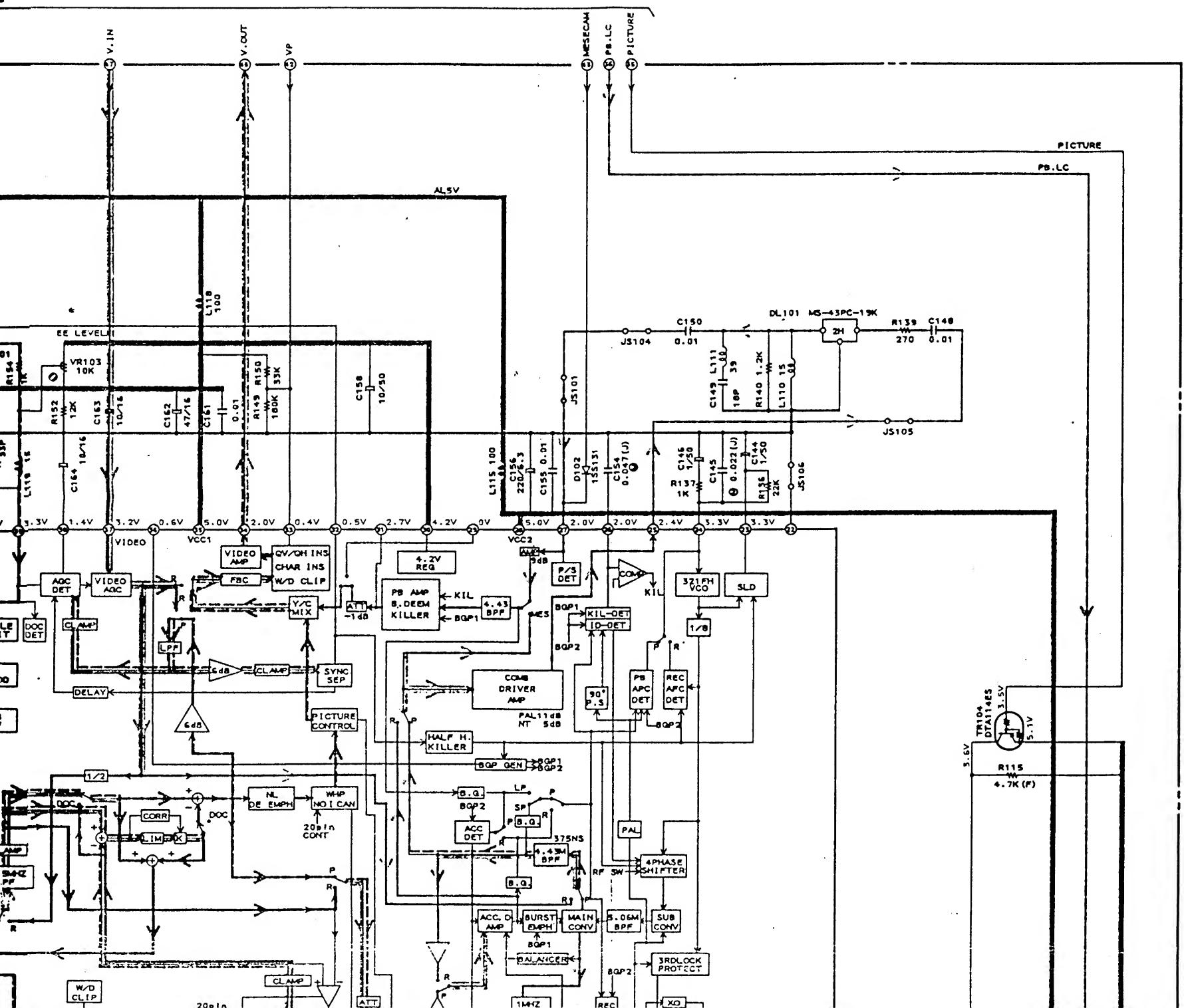
VS-R120EM
VS-P120EM
VIDEO/AUDIO (1/2)
SCHEMATIC DIAGRAM
No. 6-2 V118102M
AO

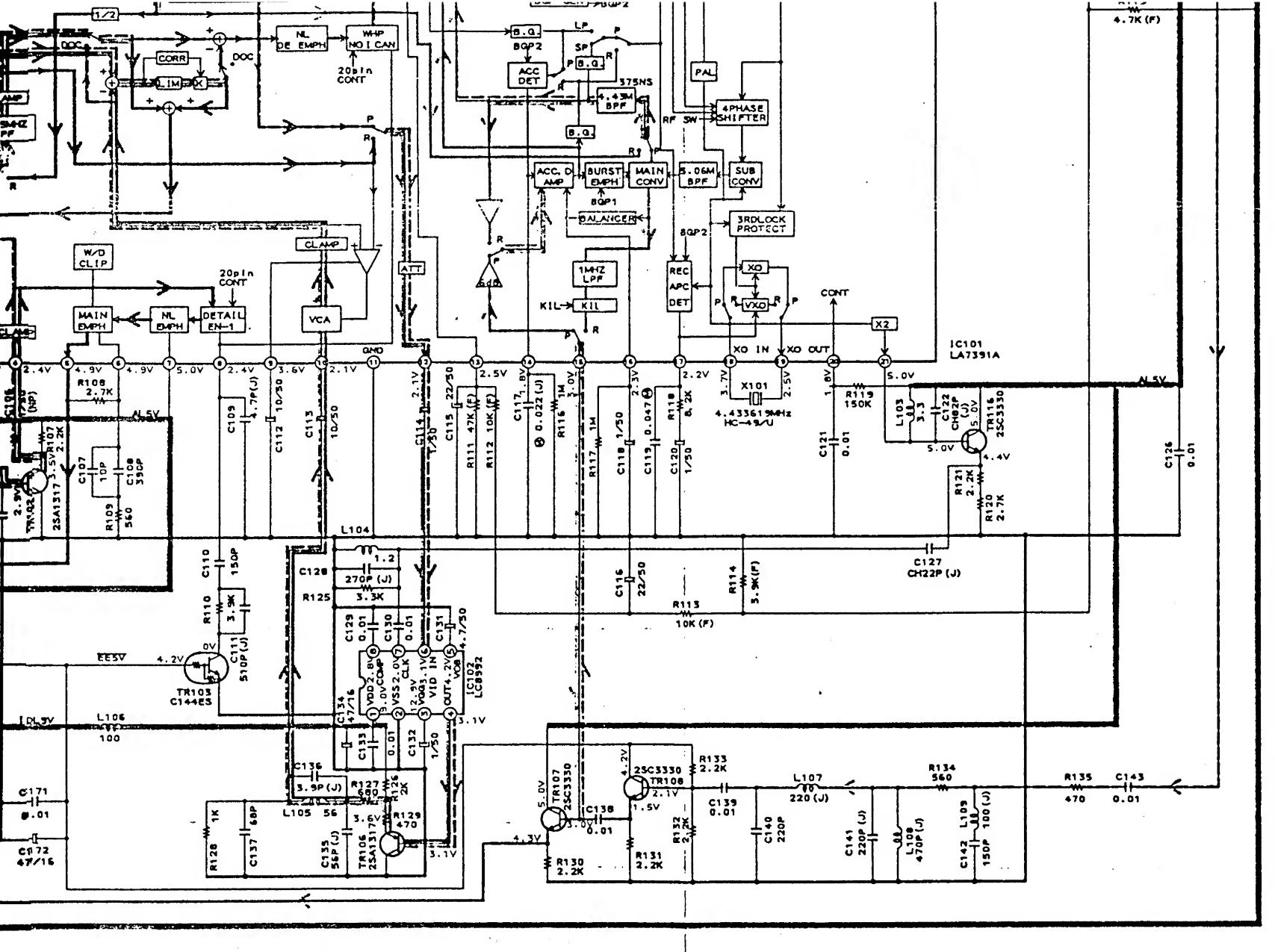




VIDEO/AUDIO PCB V1181A501A

————— B (POWER SUPPLY) LINE
 - - - - - PB Y SIGNAL LINE
 - - - - - REC Y SIGNAL LINE
 - - - - - PB CHROMA SIGNAL LINE
 - - - - - REC CHROMA SIGNAL LINE





INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μ F (P-PF)
ALL ELECTROLYTIC CAPACITORS IN μ F/MV
© IS FILM CAPACITOR

VS-R120EDG
VIDEO/AUDIO (1/2)
SCHEMATIC DIAGRAM

No. 6-3 V118103M
A0

F

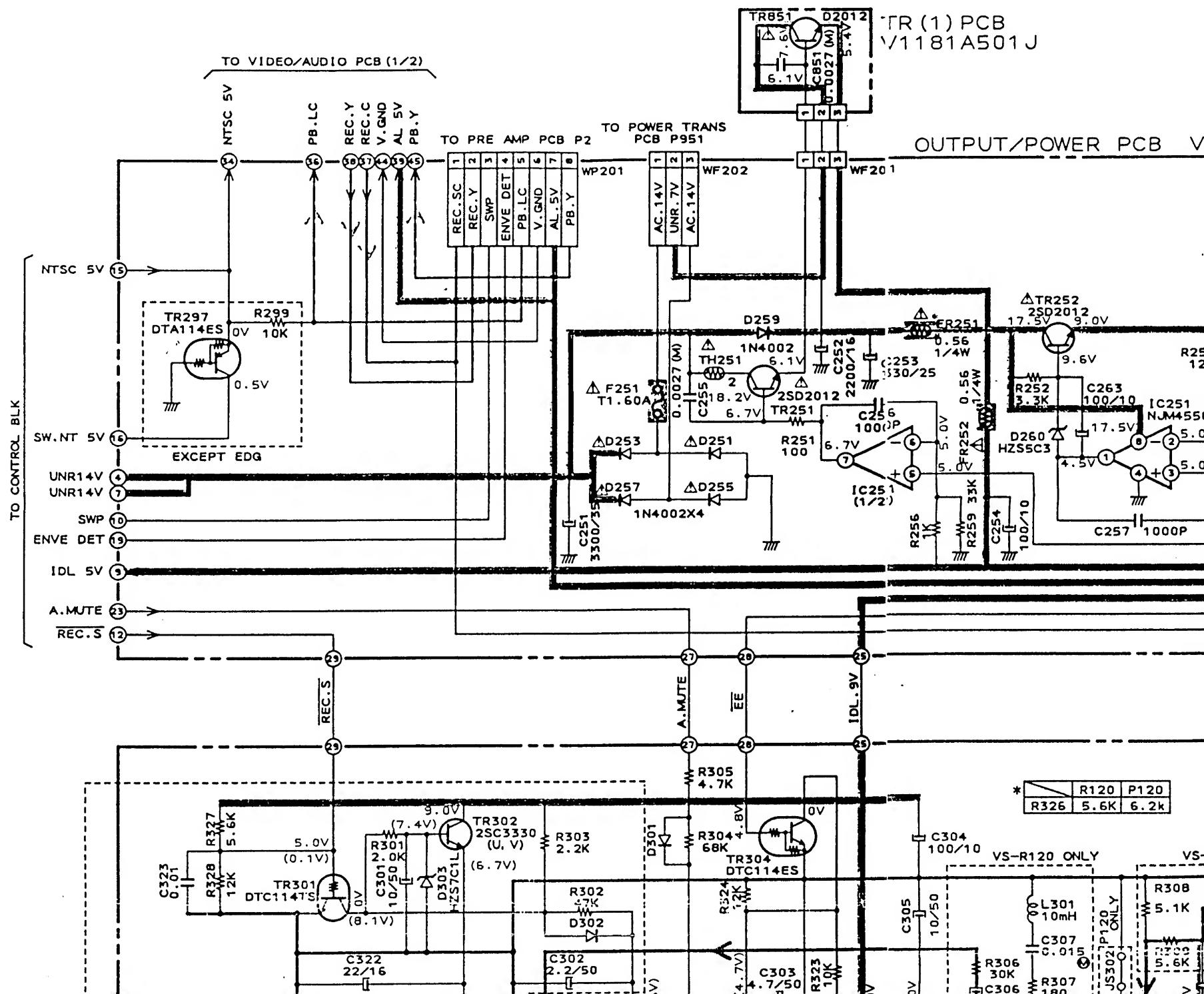
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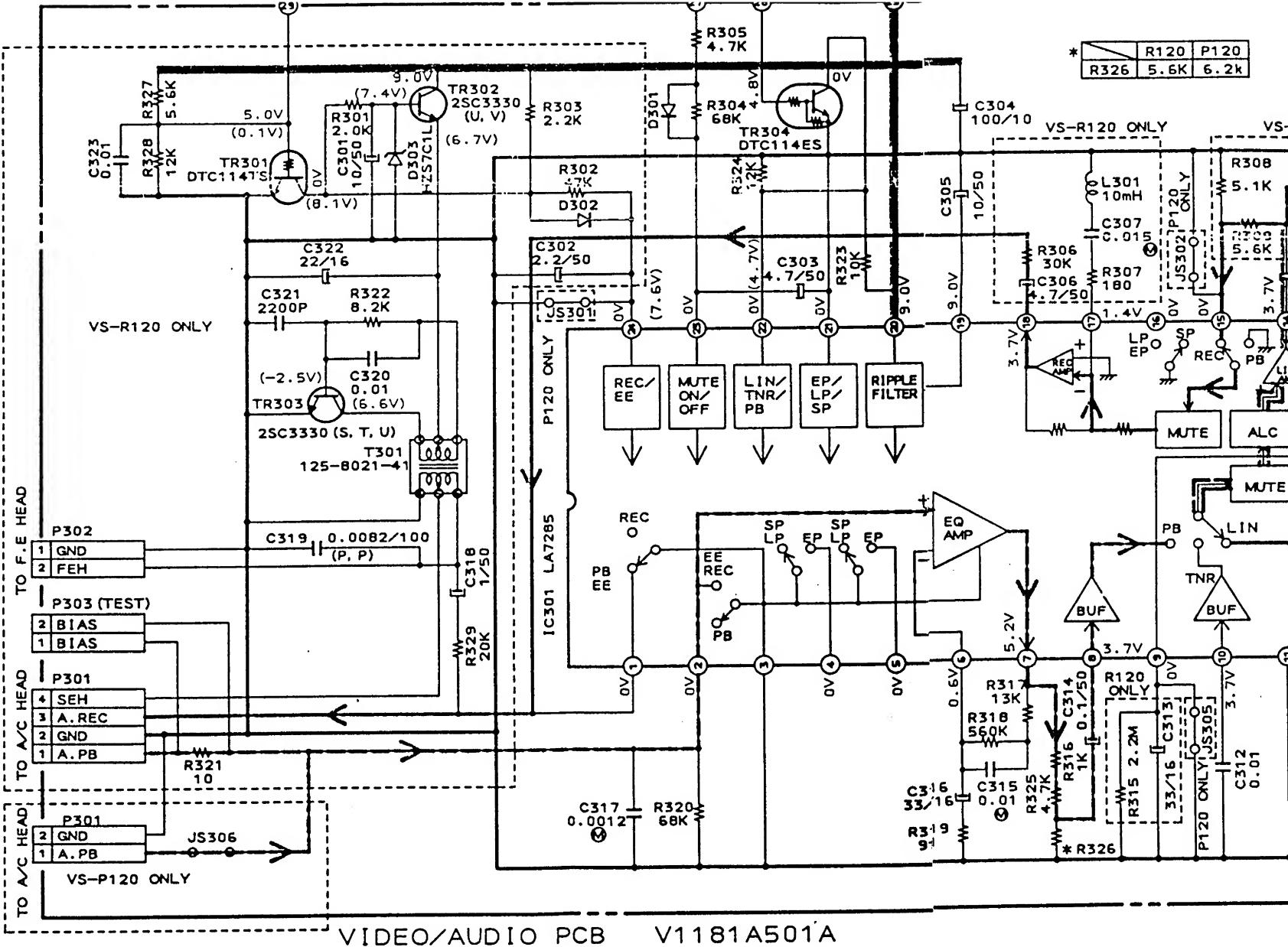
H

I

J

K





INDICATED VOLTAGES WERE
MEASURED DURING PB MODE.
() : REC MODE

— B (POWER SUPPLY) LINE
- - - - - PB AUDIO SIGNAL LINE
— REC AUDIO SIGNAL LINE
- - - - - PB VIDEO SIGNAL LINE
— REC VIDEO SIGNAL LINE

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μ F (P-PF)
ALL ELECTROLYTIC CAPACITORS IN μ F/WV
ALL DIODES ARE 1SS131T
① IS FILM CAPACITOR

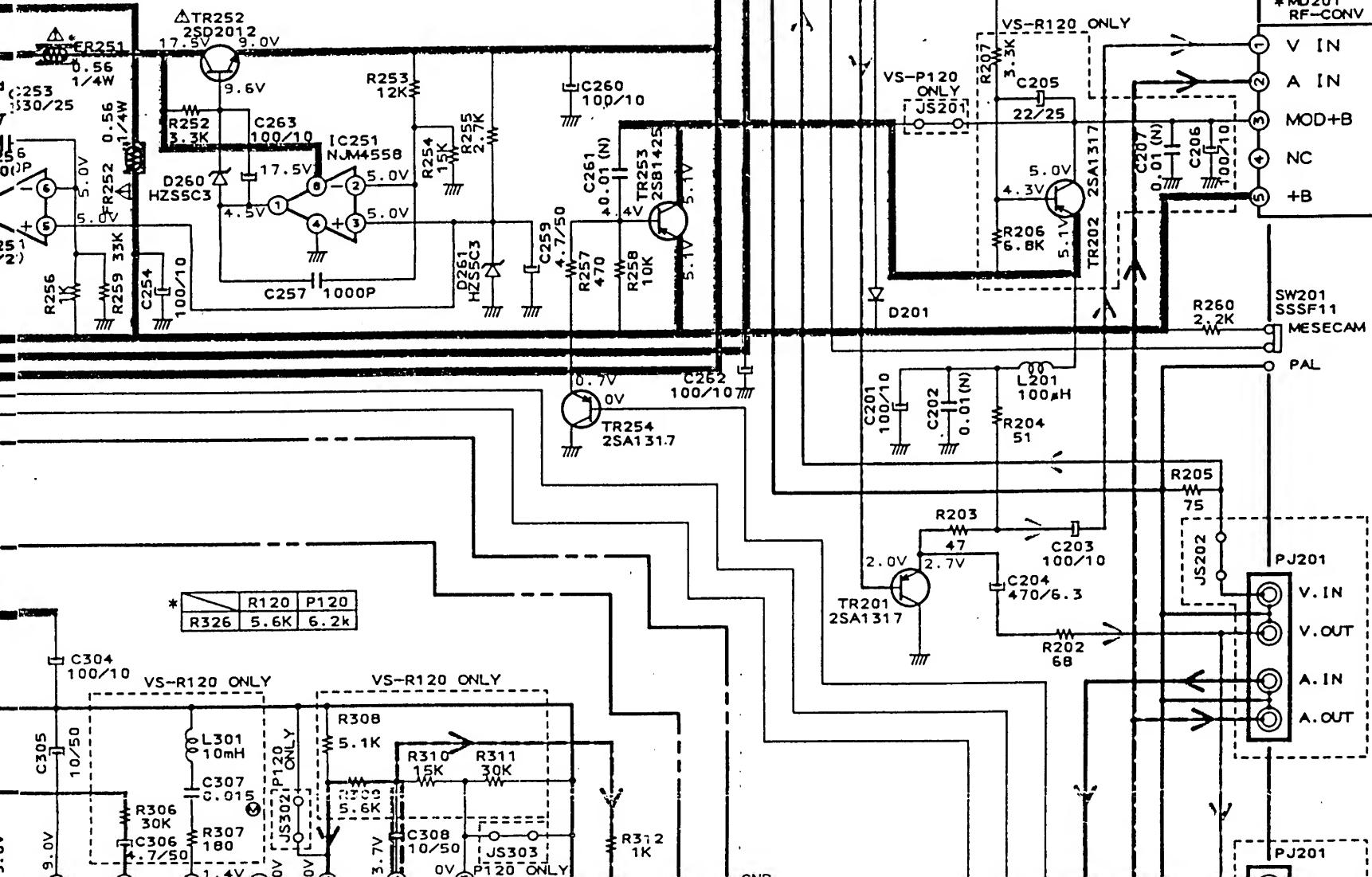
A B C D E F

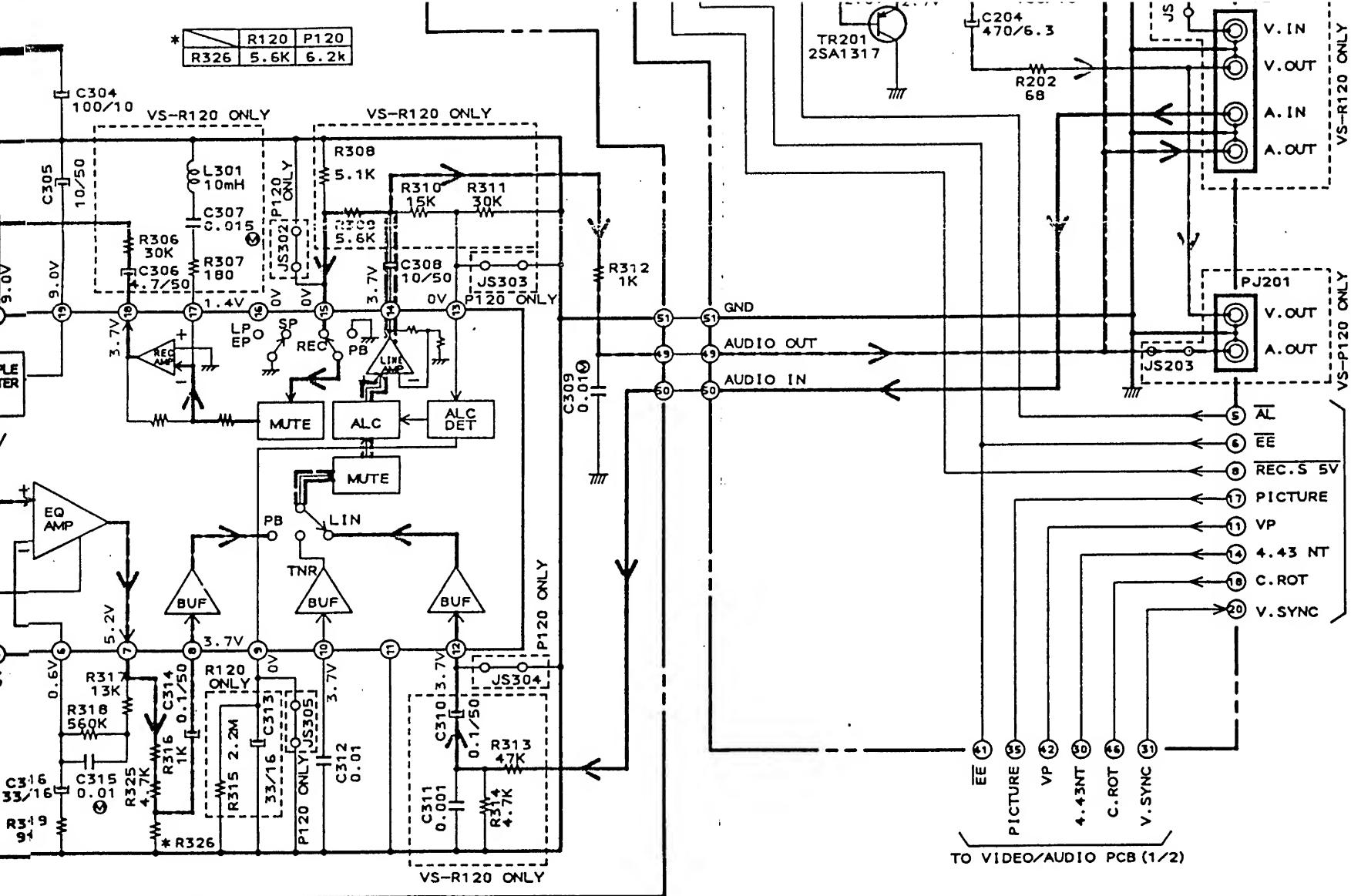
TR (1) PCB
V1181A501J

OUTPUT/POWER PCB V1181A501B

TO VIDEO/AUDIO PCB (1/2) TO CONTROL PCB

* MD201 RF-CONV	
R120EM P120EM (Y2)	YAA21-0921G
R120EDG P120EM (Y1)	MDF33-UD360P





NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μ F (P-PF)
ALL ELECTROLYTIC CAPACITORS IN μ F/MV
ALL DIODES ARE 1SS131T
© IS FILM CAPASITOR

WARNING: **Δ** AND **█** INDICATE SAFETY CRITICAL
COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS
ONLY WITH MANUFACTURER'S RECOMMENDED
PARTS

AVERTISSEMENT: ~~A~~ ET ~~...~~, ILS INDIQUENT LES
COMPOSTANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ
DE L' APPAREIL, NE REMPLACER QUE DES
PIÈCES RECOMMANDÉES PAR LE FABRICANT

VS-R120EDG/EM
VS-P120EM
OUTPUT/POWER &
VIDEO/AUDIO (2/2)
SCHEMATIC DIAGRAM

No. 6-4 V118104M

1

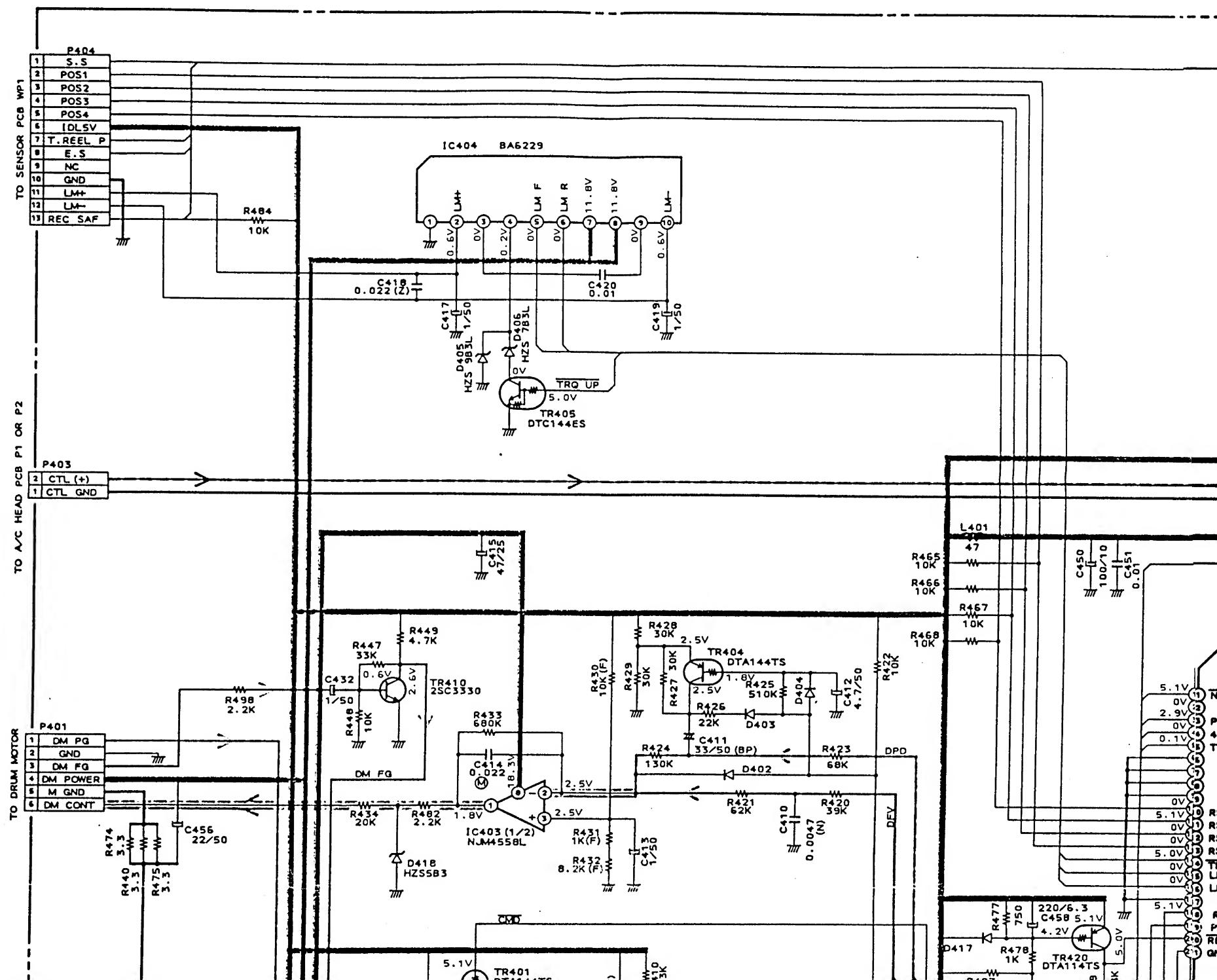
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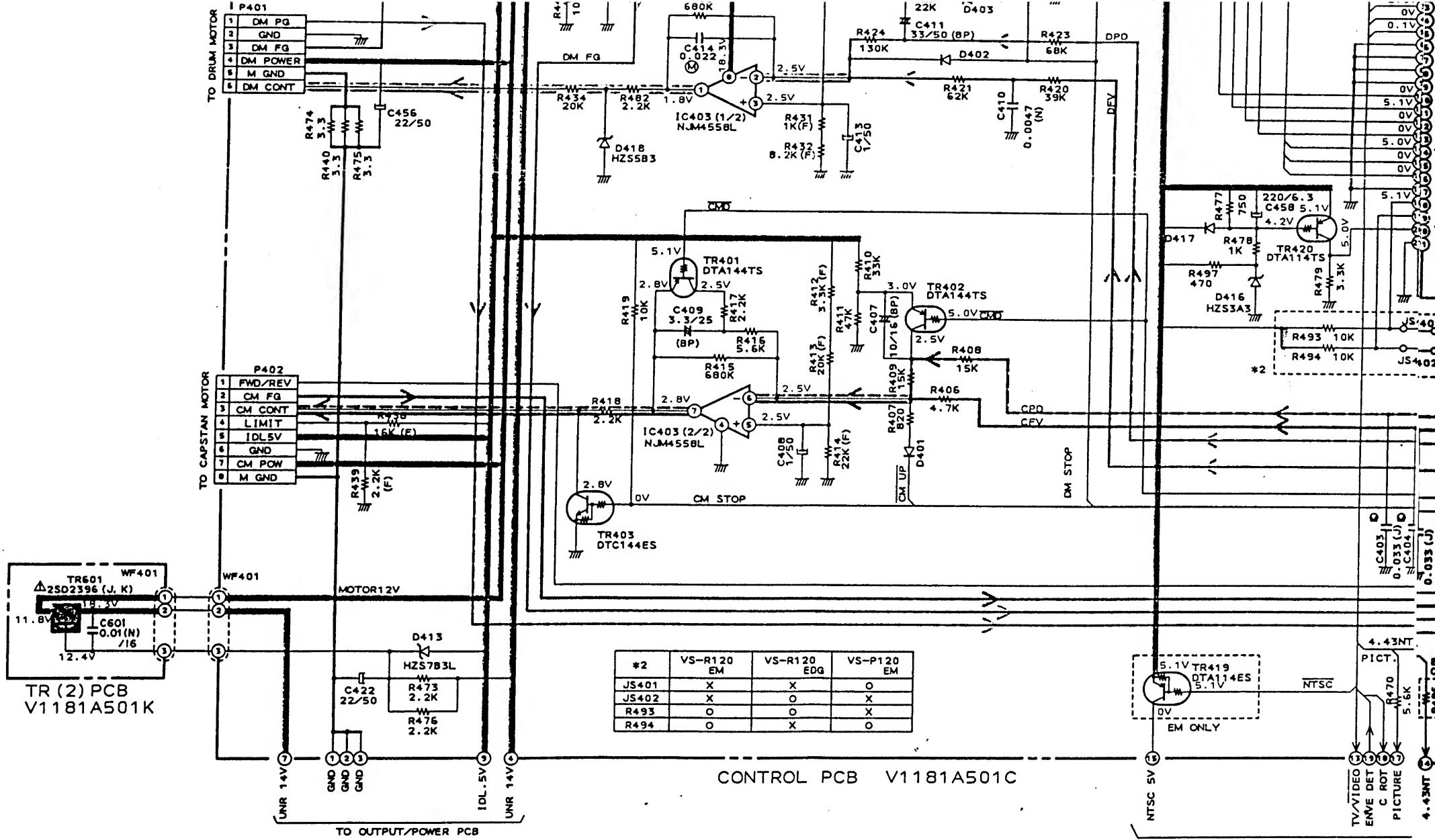
1

1

1

10



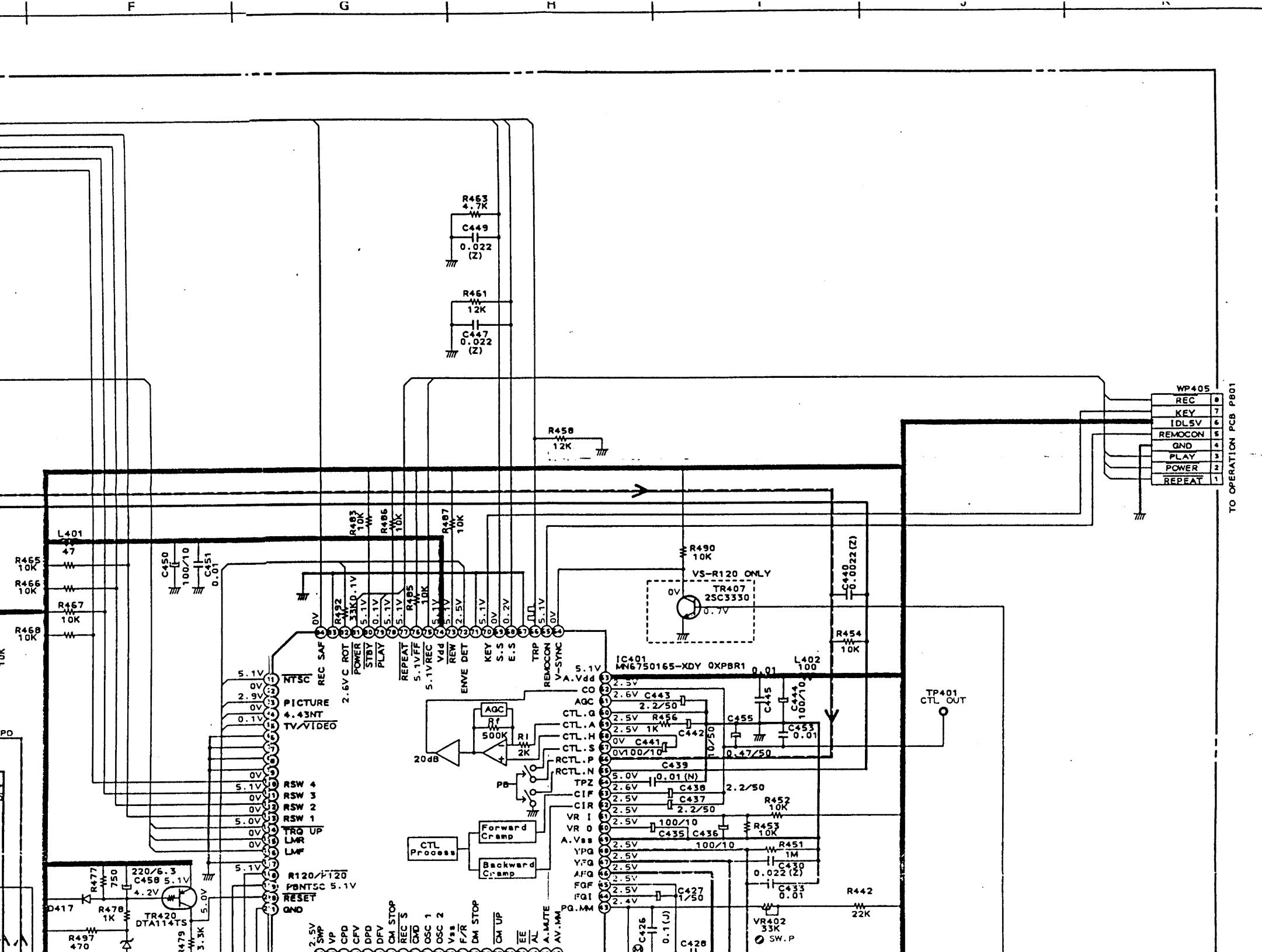


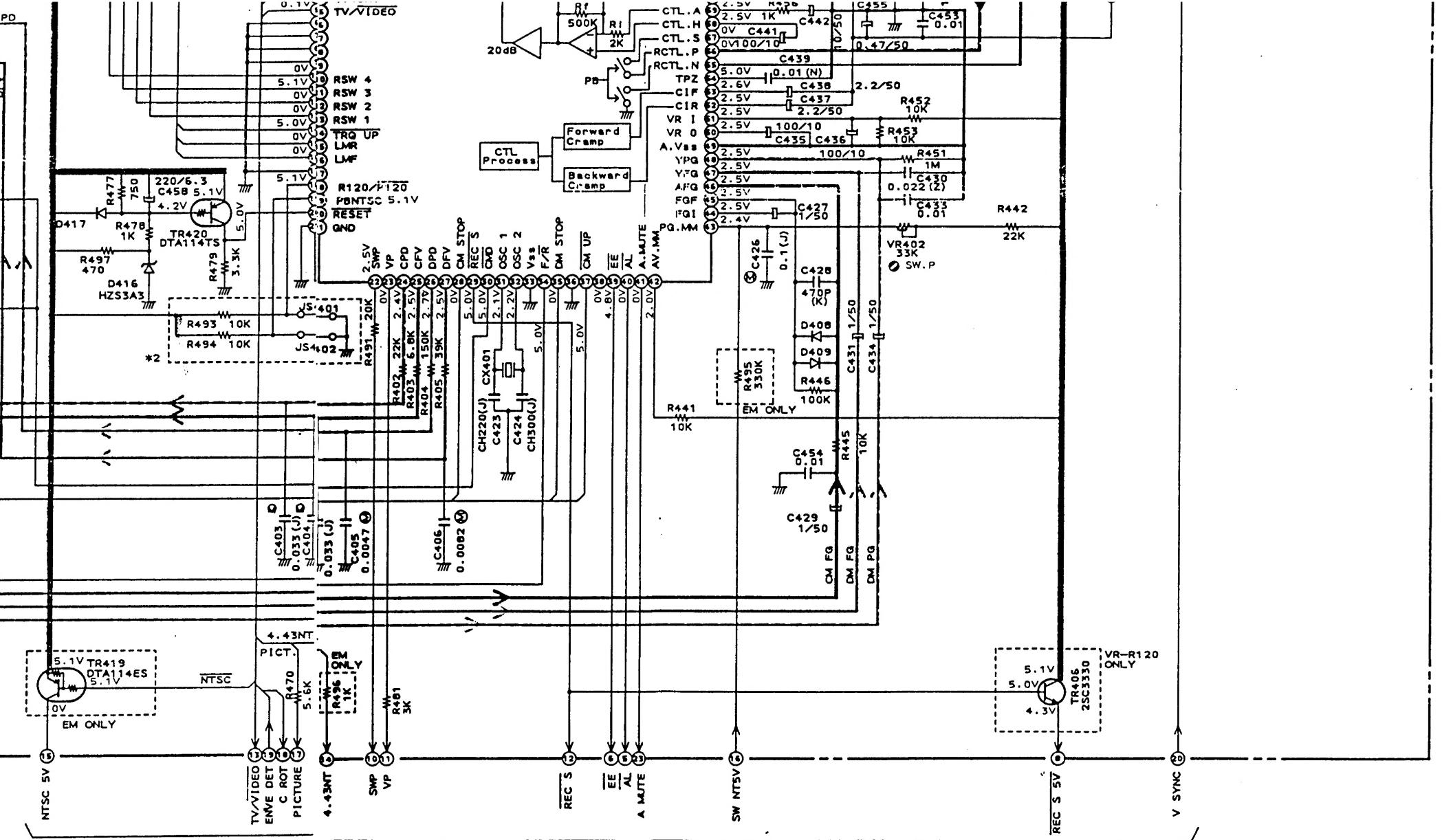
- B (POWER SUPPLY) LINE
- CAPSTAN MOTOR PHASE CONTROL LINE
- CAPSTAN MOTOR SPEED CONTROL LINE
- DRUM MOTOR PHASE CONTROL LINE
- DRUM MOTOR SPEED CONTROL LINE

NING: **Δ** AND **■** INDICATE SAFETY CRITICAL
COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS
ONLY WITH MANUFACTURER'S RECOMMENDED
PARTS

RTISSIMENTS ET ■, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

INDICATED VOLTAGES W
MEASURED DURING PB W ~~100~~

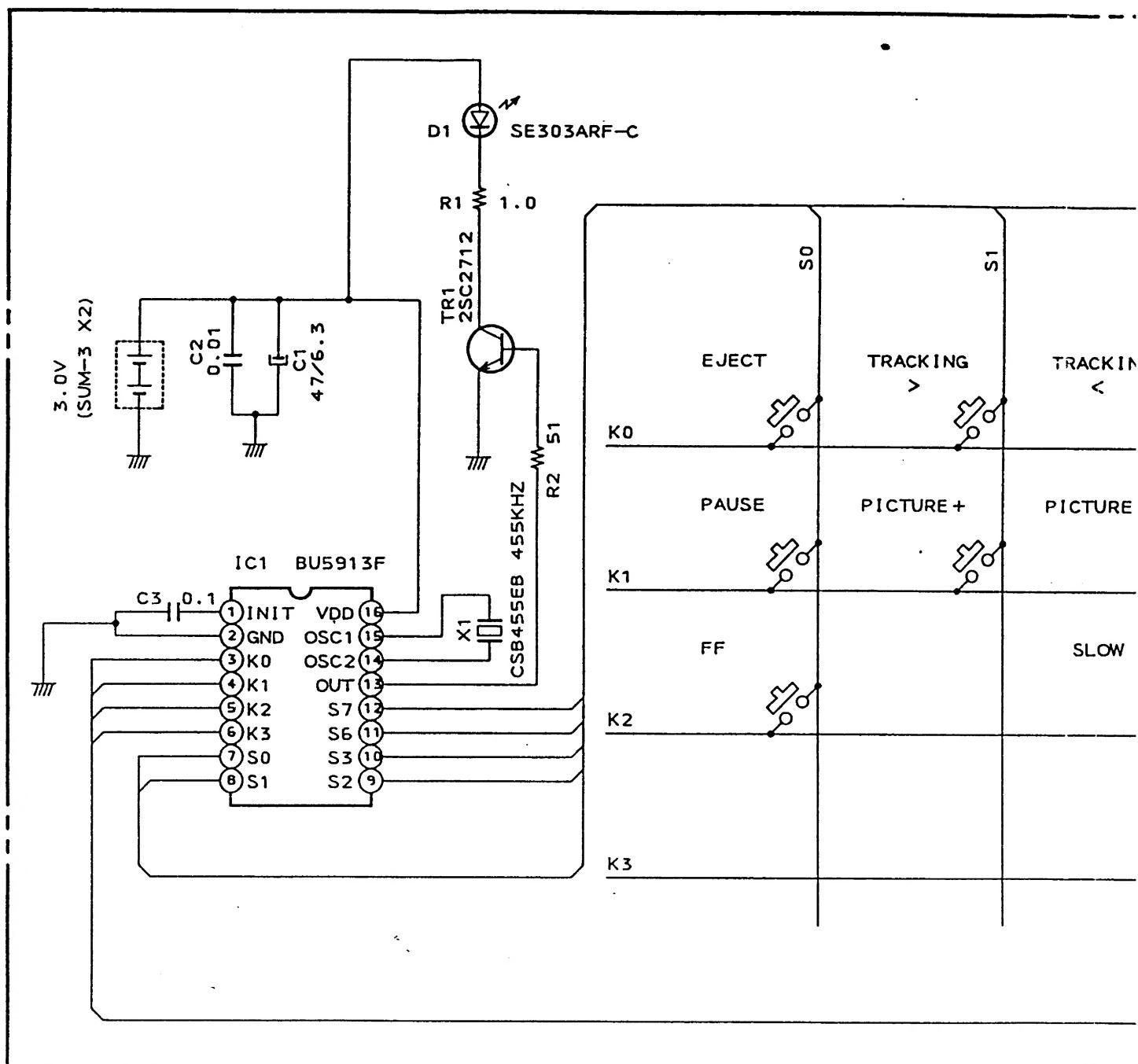




INDICATED VOLTAGES * WERE
MEASURED DURING PB MODE.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/8W (J)
ALL ELECTROLYTIC CAPACITORS IN μ F/WV (M) (P-PF) 50WV (N)
ALL INDUCTORS IN μ H (K)
ALL DIODES ARE 1SS131
ALL CAPACITORS IN μ F (P-PF) 50WV (N)
BUT 0.01 μ IS 16WV (N)
* IS FILM CAPACITOR

VS-R120EDG/EM
VS-P120EM
CONTROL
SCHEMATIC DIAGRAM
No. 6-5 V118105M
A1



REMO-CON PCB B1030C5010

NOTE
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS
 ALL CAPACITORS IN μ F
 This Schematic is only for
 Avoid replacing individual
 replace the entire unit on

